TOLEDO PUBLIC SCHOOLS

DOMESTIC SCIENCE

FOR

ELEMENTARY GRADES

THE BOARD OF EDUCATION
TOLEDO, OHIO
1919

Ena Frost

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Seventh Grade

TOLEDO PUBLIC SCHOOLS

Course of Study
IN
Domestic Science
FOR
Elementary Grades

BOARD OF EDUCATION
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Elementary Courses

FOR

Domestic Science

IN

Courses of Study

TOLEDO PUBLIC SCHOOLS

Committees on Course of Study in Domestic Science

SEVENTH GRADE

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SEVENTH GRADE PROBLEM

What must I, a girl in the Seventh Grade know about food, clothing and cleanliness in order to help myself and family keep well, strong and happy?

LESSON 1

INTRODUCTORY LESSON

LESSON 2

MEASUREMENTS

All materials used in the recipes given in this outline are to be measured level.

Level measurements are used: (1) So as to secure the exact amounts required by the recipe. (2) So that all materials will be in exact proportion to one another. (3) So that the same recipe, carefully used, will always produce the same result.

To measure a cupful of dry material, put the material in the cup with a spoon, being careful not to pack it, heap slightly and scrape off the extra material with the blunt edge of a case knife.

To measure a spoonful, heap slightly and scrape off extra material with a knife as mentioned above.

To measure a half spoonful, level and divide in half by cutting through the middle lengthwise. A quarter spoonful is measured by first dividing in half and then cutting through the middle crosswise.

A *speck* is as much material as can be taken on the tip of a pointed knife.

ABBREVIATIONS USED IN COOKERY

tsp.—teaspoon.
tbsp.—tablespoon.
c.—cup
spk.—speck.
f. d.—few drops.
pt.—pint.

EQUIVALENT MEASURES

3 tsp.—1 tablespoon.
16 tbsp.—1 cup.
1 c.—8 liquid ounces.
2 c.—1 pint.

HINTS ON HOW TO WORK

Always wear an apron large enough to cover the dress well and a simple white cap to keep the hair tidy and away from the food.

Before touching or preparing any food, the hands should be thoroughly washed with soap and water and the nails cleaned. Keep a damp towel handy on which to wipe the fingers when they become soiled or sticky. Do not use the hands for anything that can be done equally as well with a spoon, fork or other utensil. Do not handle food any more than is necessary.

Learn to work neatly, carefully, systematically, quietly and quickly. Save time and energy by planning your work. See that all necessary materials and utensils are at hand. Have materials ready for use, flour sifted and measured, eggs broken, raisins stoned, pans greased, etc. before starting to put them together. If boiling water is to be used, or if the oven is required, let it be heating while you are engaged with other details. Measure dry materials first and then the liquids to save utensils. Do not put a wet spoon into dry material or a spice spoon into the sugar or the flour.

Be careful not to spill things and if an accident happens, wipe or sop up at once. Keep the table clean. Put soiled spoons, knives, etc. on a plate placed conveniently for that purpose.

Keep the sink clean, the stove black and the water faucets bright. Do not use the dish towel or cloth to wipe the stove, sink or table. Have cloths particularly for these purposes

and then use them. Never use the apron or handkerchief to lift or carry hot lids or dishes; have holders to protect the hands.

Everything about a kitchen must be as orderly, clean and neat as possible.

RULES FOR DISH WASHING

Collect all dishes to be washed. Scrape carefully and pile them according to size and kind. Dishes which have contained eggs or milk should be rinsed in cold water and those which have contained fat in hot water. If dishes or pans are very greasy, wipe with a paper before rinsing.

Wash the dishes in hot soapy water, rinse thoroughly in clean hot water and wipe perfectly dry. In washing the dishes the following order is usually observed: glassware, silverware, cups and saucers, plates, large dishes and then the tinware and cooking utensils. Change the dish water as often as necessary and use as many clean dish towels as is required to do the work well.

Scour the cooking utensils and steel knives and forks to remove black and stain.

If food is badly stuck to pans, fill them with water in which a little sal soda (washing soda) has been dissolved and let them stand for a few hours before washing. A wire dish cloth or pan scraper may also be useful.

Wooden spoons and wooden handled utensils should not be soaked in water. Wash molding boards with clean hot water without soap or cleanser. Use a brush if necessary and scrub with the grain. Wipe and stand in the sun to dry before putting away.

Wash the blades of a Dover egg beater and wipe the cogs with a damp cloth.

CARE OF DISH TOWELS, CLOTHS AND SINK

Great care should be taken with the towels and cloths used in housekeeping, as they may be a source of disease. Have dish towels and cloths neatly hemmed and use them only for the purpose for which they are intended. Have two

cloths, one for the dishes and one for the sink. Wash the dish towels once a day in hot soapy water and the cloths after each meal; hang in the sun to dry. Rinse towels and cloths thoroughly in clean water after each meal; wash and wipe dish pans.

The sink and drain boards should be washed with hot soapy water. Use cleaning powder to remove stains and material which the soap does not effect, but do not use a powder that will scratch or injure the sink lining.

Class prepare Cocoa.

Large recipe:	Small recipe:
¼ c. cocoa.	½ tbsp. cocoa.
¼ c. sugar.	½ tbsp. sugar.
2 c. water.	⅓ c. water.
2 c. milk.	⅓ c. milk.

Mix cocoa and sugar with boiling water and cook slowly directly over the fire from three to five minutes. Stir this into scalded milk. Then cook in double boiler five minutes. Beat well just before serving.

QUESTIONS ON LESSON 2

1. How should a cupful be measured?
2. How should a spoonful be measured? A half spoonful? A quarter spoonful? Why?
3. How should a speck be measured?
4. Give five abbreviations used in cooking.
5. How many tsp. in one tbsp? Tbsp. in one c? Cups in one pt.?
6. Why is it best to use level measurements?
7. Why should dishes which have contained milk, cream, egg, flour or starch be rinsed in cold water before washing?
8. Why should greasy dishes and utensils be wiped with paper and then rinsed with hot water before washing?
9. Why should dishes which have contained sugar or syrup be soaked in hot water before washing?
10. Why should a bar of soap not "soak" in dish water?

LESSON 3

Cooking is the process of preparing foods to eat. It is done chiefly by means of heat.

Food is that, which taken into the body supplies it with heat and energy or builds up and repairs tissues. All food, no matter what it is, or how it is prepared, is composed of five *materials or elements* called "*food principles.*" Each *element* has a certain duty to perform in our bodies: As our health and strength depend largely on the food we eat and how it is prepared, it is important that we know of what our food is made and how it nourishes us. The following table gives the Five Food Elements and their uses to the body:

ELEMENTS	USES TO THE BODY
1. Water	Quenches thirst. Helps circulation. Aids digestion. Regulates body temperature. Stimulates nervous system. Carries off waste.
2. Carbohydrates...	Supply heat and energy and
Starch.	form fat.
Sugar.	
Cellulose.	
3. Proteins	Build and repair tissues.
Albumen	Supply heat and energy.
Casein.	
Fibrin.	
Gluten.	
Legumin.	
4. Fats	Supply heat and energy.
Butter.	
Oils.	
Lard, etc.	
5. Mineral Matter...	Builds up teeth and bones.
Acids	Purify blood.
	Act as tonic and aid digestion.

All foods contain at least two of these elements while some contain three or four and a few all five. Each food contains more of one element than another. So we call that food a *starchy food, protein food, fatty food,* etc., according to the element which is most plentiful in that food.

The five proteins named in the table are all alike, in that they are made up principally of protein, only each is found in a different food. In the same way we have different carbohydrates, fats and minerals. The different classes of proteins, carbohydrates, fats, etc. may be compared to a family: all have the same last name but the surnames are different. Since our bodies require *heat, energy* and *tissue-building* material to keep them in good condition, we can easily see that we must eat a certain amount of food each day which contains each food element.

In order to be able to plan meals carefully and to know what combinations of foods are best and why, we shall discuss the composition of each food as we learn to cook it and we shall then see that there is a very definite reason why we eat potatoes or bread with meat, milk with cereals, etc., other than because they "taste good."

WATER

Water is one of the most important food elements and is essential to the maintenance of the life and growth of all living things in both the animal and plant kingdoms.

Water occurs very abundantly in nature. It covers nearly five-sevenths of the surface of the earth, in the form of seas, lakes and rivers. It is present in the atmosphere in the form of vapor and descends as dew, rain, hail and snow. It is found in the surface soil and deep down in the earth from which we derive our surface and Artesian wells. It forms a large part of all vegetable and animal life. *Nearly 70 per cent. of the human body is water.* This is supplied not only by what we drink but from the foods which we eat for they contain a very large percentage of water.

While water has many uses beneficial to mankind, we are particularly interested in its use to the human body and in the household.

As it occurs in nature, water is very apt to contain impurities which are injurious to the human system and which frequently are the direct cause of disease. We should, therefore, consider carefully the source of our household water supply. Water is purified by three general methods: *distillation*, *boiling* and *filtration*.

The first two, on account of the intense heat used, are most effective in destroying germs and bacteria. Filtration removes the suspended matter, clarifies the water, and if the filter is kept clean, removes most of the injurious germs.

Water boils at 212 degrees Fahrenheit, at the sea level.

EXPERIMENT

To determine the appearance of water at the boiling and simmering points: put a sauce pan three-fourths full of water on the fire. Watch it closely as it heats and notice the changes that take place in it. Make a list of these changes.

QUESTIONS ON LESSON 3

1. What is cooking?
2. What is food?
3. Why is food cooked?
4. What is a food principle?
5. Name the five food principles.
6. What is the use of each principle to the body?
7. Give four uses of water to the body.
8. Tell the difference in appearance between water when it is simmering and when it is boiling.
9. How is water purified?
10. Give several uses of water in the household.
11. Why is water from surface wells apt to be impure?
12. At what temperature does water boil?

LESSON 4

FRUITS

Prepare Baked Apples or Stewed Prunes or any Dried Fruit.

BAKED APPLES

Wipe apples and core if desired. Put in a baking dish and fill the centers with sugar. If not cored, sprinkle with 1 tbsp. sugar for each apple. Cover the bottom of the dish with boiling water and bake in a moderate oven from 20 to 30 minutes or until soft. A little spice may be added.

STEWED PRUNES WITH LEMON

2 Prunes.
1 tsp. sugar (or none).
1 slice lemon (or small piece).

Wash prunes and soak over night or several hours in water to cover. Cook in same water until plump, add sugar and lemon. Cook 10 min. longer.

Fruits contain large quantities of water, some acid, mineral compounds, sugar and cellulose. They have almost no protein or fat. The mineral compounds are necessary to make pure blood and sound tissues. Acid acts as a *tonic*, while sugar is a *fat* and *heat*-producing food.

Fruits containing large amounts of sugar:

Bananas	Prunes
Figs	Grapes
Dates	

Fruits containing large amounts of water:

Melons	Lemons
Oranges	Grapes

Fruits containing large amounts of mineral:

Apples	Grape fruit
Lemons	Oranges

RULES FOR EATING FRUIT

Thoroughly ripe fruit should be freely eaten, taking the place of many made desserts. Unripe fruit is hard to digest. Over-ripe or unsound fruit is sometimes poisonous.

Cooked fruit is more easily digested by some persons than uncooked fruit. Fruit not quite ripe is made safe by thorough cooking.

TO PREPARE AND SERVE FRUITS

Clean fruit before using. Rinse berries and grapes quickly in cold water, by putting in a strainer or colander and pouring water over them. Wipe larger fruits with a damp cloth.

When cooking fruit use silver or wooden spoons and earthen or enameled dishes. Why?

Fruit should be served cold, except when taken directly from the tree or vine, when cooling is unnecessary.

Sometimes fruit is sugared before being sent to the table. Oranges and pineapples may be sliced and sugared and allowed to stand for half an hour. Peaches discolor easily and should be prepared quickly and sent to the table at once.

Add sugar before cooking when fruit is to be left whole; after cooking when it is to be mashed.

QUESTIONS ON LESSON 4

1. Why are fruits important food?
2. Why is it desirable to eat fruit the first thing in the morning?
3. Why does an apple a day keep the doctor away?
4. What is the purpose of soaking dried fruit before cooking?
5. What use should be made of the water in which dried fruits have soaked?

LESSON 5

Problem—*Sanitation in Kitchen*

Review and demonstrate washing of dish towels.

To wash a towel in the absence of a wash board, rub on soap, rub towel on left hand, use right hand to squeeze water through the towel, rinse in clean water.

To wring a towel, fold towel to convenient size, place right hand over the towel and left hand under, then twist. If the towel is not wrung dry, it will drip when hung up.

It is necessary to keep everything in a sanitary condition.

It is important to use boiling water.

QUESTIONS ON LESSON 5

1. In the absence of a wash board, how could you get the towels clean?
2. What happens if towels are not wrung dry?
3. How can we wring them dry?

LESSON 6

STARCH

Problem—*Many foods contain starch. How should I cook them? What is their value to the body?*

Starch is a form of carbohydrate that is present in many *grains, fruits* and *vegetables.*

It is a fine white powder, each grain of which is covered with a tough covering of cellulose.

If a little starch is put into cold water, it sinks to the bottom of the pan unchanged. Demonstrate. If put into hot water and boiled this cellulose covering bursts and the starch comes out into the water and thickens it. Demonstrate. Starchy foods must, therefore, be thoroughly cooked in order to break open the starch cells.

Cellulose is not digestible, but its hulk is valuable since it aids in the proper movement of food through the digestive tract.

Starch is valued as a food because it supplies *heat* and *energy* to the body and forms *fat.*

POTATOES

Potatoes are the underground stems of the potato plant. They are composed of water, carbohydrate in the form of starch, and mineral matter. The skin is mostly cellulose and just underneath the skin lies the mineral matter.

Class cook boiled and mashed potatoes. Demonstrate baked potatoes.

BOILED POTATOES

6 potatoes 1 tbsp. salt 1 qt. boiling water

Wash, scrub and pare potatoes of uniform size, and put in cold water. Drop in boiling salted water and cook till a fork will pierce them, or about 30 min. Drain off every drop of water, and put uncovered on back of stove, shaking gently to allow the steam to escape and to make them mealy.

MASHED POTATOES

Potatoes
½ tsp. salt
½ tbsp. butter
Hot milk to moisten

Mash the potatoes in the kettle in which they are boiled, using a wire masher. For every pint of potatoes, add the salt, butter and milk mentioned above. Beat till white and creamy, pile lightly on a warm dish.

MASHED POTATO CAKES

Shape cold mashed potatoes into small round cakes. Put on a tin pan, brush with milk and bake till a golden brown, or saute in lard.

BAKED POTATOES

Select potatoes of uniform size, wash and scrub well. If the potato is perfect, cut off a small slice or prick with a fork to allow steam to escape while baking. Bake in a hot oven from 35 to 50 minutes or till soft.

QUESTIONS ON LESSON 6

1. To what food principle does starch belong?
2. Name five foods in which starch is found.
3. What happens when starch is put into cold water?
4. What happens when starch is put into hot water?
5. Why should starch be thoroughly cooked?
6. Why should starch be thoroughly chewed?
7. Name the three important food principles in potatoes.
8. As starch is drawn out by cold water, give the correct way of cooking potatoes.
9. What is the advantage of cooking potatoes with the skins on?
10. Why should potatoes be pared thin?

LESSON 7

STARCH—(continued)

Flour and cornstarch are almost pure starch, especially the latter. Knowing that starch thickens water in which it is cooked, we can easily see that *flour and cornstarch can be used to thicken sauces, gravies and soups.*

In combining flour or cornstarch with hot liquid, mix it first with a little cold water, sugar or fat to separate the grains, then add hot liquid. This will prevent lumping, since the heat will break all the grains open at the same time. When only a part of the grains burst open, they stick to the other grains and so make lumps. But more than this, the grains inside of the lumps are prevented from breaking open and so are not cooked, and therefore not digestible. For the same reason, starchy mixtures must be stirred while cooking to prevent lumping.

WHITE SAUCE

White sauces are made from flour, butter, milk and seasoning. There are three classes of white sauces: *thin*, *medium* and *thick*. The difference between them is in the amount of flour they contain. Which has the most flour?

	Butter	Flour	Milk	Seasoning
Thin	1 tbsp.	1 tbsp.	1 c.	1 tsp. salt; spk. pepper
Medium	1 tbsp.	1½ ? to 2	1 c.	1 tsp. salt; spk. pepper
Thick	2 tbsp.	2½ ? to 3	1 c.	1 tsp. salt; spk. pepper

These sauces are sometimes called one, two, and three. Does this suggest the amount of flour used in each?

Each ingredient has a purpose in the sauce:

1. Flour.....Thickening.
2. Butter.....Smoothness, Richness.
3. Milk.....Quantity, Liquid.
4. Seasoning.....Flavor.

There are three methods of combining white sauces:

1. Melt butter in double boiler or sauce pan, add flour, stir to smooth paste, add milk slowly and stir constantly until it begins to thicken. Add seasoning.

2. Make a paste with flour and butter in a cup, have milk heating in a double boiler, add the hot milk to the paste slowly, stirring constantly. Put the mixture into the boiler and cook until thickened. Add seasoning. Test.

3. Mix the flour with cold water until smooth, add hot milk slowly, then the butter, cook altogether in a double boiler until smooth. Add seasoning.

CREAMED POTATOES

1 pt. cold boiled potatoes	½ tsp. salt
1 tbsp. butter (substitute)	spk. pepper
1 tbsp. flour	1 c. milk

Make a white sauce, add potatoes cut in dice. Let the potatoes heat thoroughly in the white sauce, before serving.

QUESTIONS ON LESSON 7

1. What two materials can be used to thicken sauces, gravies and soups?
2. Give two ways of preventing starchy mixtures from lumping.
3. Give proportions for medium white sauce.
4. Suggest various ways of using white sauce.
5. Give one method of making white sauce.

LESSON 8

STARCH—(continued)

CEREALS

Cereals are the seeds of cultivated grasses or grains. They are composed principally of *carbohydrate* in the form of starch, *water* and *mineral matter*. With what do they supply the body?

Cereals are best when cooked slowly for a long time. Why? They may be boiled or steamed. What is the difference? Steaming is the better process. Why?

Some cereals are coarser than others and must be cooked longer to make them digestible. Very fine grained cereals like Cream of Wheat can be moistened with a little cold water before adding water. What advantage is there in this?

Cereals are dry and absorb a great deal of water while cooking. Notice the rice kernels before and after cooking.

Cereals lack sugar, protein and acids, so they are served with sugar and cream or with fruits such as berries. Sometimes, dates or figs are cooked with the cereals.

Cereals may be served hot or cold. Cold cereals can be cut into pieces and cooked in a little butter until brown.

In cooking cereals the important thing to remember is that they must be well cooked.

A double boiler must be used when things are to be cooked slowly, when they are not to be boiled and when they are to be steamed. A double boiler is used when cooking cereals, milk or egg and milk mixtures. Why?

Cereals may be purchased in the following forms:

Flakes—as rolled oats. Granular—as hominy grits.

Finely ground—as corn meal. Whole, as rice.

Display various cereals.

CORNMEAL MUSH

To 4 cups boiling water, add 1 tsp. salt and 1 cup cornmeal, wet in cold water. Stir till thick and cook slowly from 1 to 2 hours. Serve hot with milk and sugar. Pack what is

left over in a greased baking powder can or small bread pan. Next morning, remove from mould, slice and saute in hot fat.

ROLLED OATS

2 c. boiling water. 1 c. rolled oats. ½ tsp. salt.

Put boiling water in the top of double boiler, add salt. Stir in rolled oats and cook ½ hour without stirring.

STEAMED RICE

2 c. boiling water. 1 c. rice 1 tsp. salt.

Wash rice. Put boiling water and salt in top of double boiler. Add rice and steam 1 hour. Do not stir.

CREAM OF BARLEY

3 c. boiling water. 1 tsp. salt. ½ c. cream of barley.

Put boiling water in top of double boiler. Add salt and Cream of Barley wet in cold water. Stir till thick and steam 20 to 30 minutes.

QUESTIONS ON LESSON 8

1. What are cereals?
2. Name the most important food principle in cereals.
3. Why should cereals be thoroughly cooked?
4. Why are cereals cooked in several times their bulk of water?

LESSON 9

REVIEW

1 c. of water.
4 tbsp. of cream of wheat.

LESSON 10

VEGETABLES

Vegetables are an important class of *starchy* foods. All vegetables have the same general composition as potatoes.

Vegetables belong to the plant family. Of some of them only the *leaves* are used, of others the *stems*, or *roots*, or *flowers*, etc. Make a list of vegetables, telling the part of the plant used for food.

Vegetables can be prepared in many ways. A few can be eaten raw after they have been washed or pared. Usually they are boiled first then served with butter, salt and pepper or in white sauce. Some can be fried while others are baked.

Vegetables if properly cooked are very nourishing and combined with white sauce, butter, etc. are very palatable.

RULES FOR COOKING VEGETABLES

1. Strong flavored—Cook in large quantity of water and leave uncovered to prevent odor from going back into vegetable.
2. Water boiling and salted.
3. Sweet flavored—Just enough boiling water to cover vegetable. Water can be used for stock.

Practical Work: Prepare escalloped cabbage or any winter vegetable.

BOILED CABBAGE

Remove outer leaves and soak in cold water with head down, to draw out insects. Cut into quarters or slice fine, put into a kettle of boiling water with ¼ tsp. soda. Boil 20 minutes uncovered. Drain and cover again with boiling water. Boil 20 minutes longer or until tender, drain and season with salt and pepper. Pour ½ c. heated vinegar over it, or milk enough to barely cover.

ESCALLOPED CABBAGE

Chop cold boiled cabbage fine. Put a layer in baking dish, sprinkle with salt and pepper and pour over it a layer of

white sauce. Repeat until the dish is full, having sauce for the top layer. Cover the top with buttered crumbs, and bake till brown.

TO BUTTER CRUMBS

2 tbsp. butter to 1 c. crumbs. Melt butter, add crumbs and stir lightly with a fork until all crumbs are evenly coated.

QUESTIONS ON LESSON 10

1. Why should the outside of a vegetable be pared as thinly as possible? What are the exceptions to this rule?
2. Why should vegetables be placed in boiling rather than in cold water for cooking?
3. How should the water in which vegetables are cooked be used? Why?
4. How should the water boil in cooking vegetables? Why?
5. Why should the water be drained from boiled vegetables immediately after cooking?

LESSON 11

CREAM SOUPS

Cream soups are made with thin white sauce to which is added the cooked or strained pulp of vegetables. Cream soups are very nourishing for they contain nearly all the food elements. They are usually served with crackers or croutons made from stale bread.

Soups can also be made without white sauce. Soups are served at the beginning of a meal, as an appetizer.

Practical Work—Prepare: Cream of potato soup.
Cream tomato soup.
Croutons.

GENERAL DIRECTIONS FOR CREAM SOUPS

Cook vegetables in water till soft; press through a strainer, Melt the butter in a sauce pan or double boiler, and add the flour. Add milk and stir until it thickens. Add the strained vegetable and season. Bring to a boil and serve. The amount of flour used varies with the thickness of the strained vegetable.

The thickening of soups is often called *binding*.

POTATO SOUP

1 slice onion.
1 stalk celery.
1 pt. milk.
½ c. mashed potatoes.
2 tbsp. butter.
1 tbsp. flour.
½ tsp. salt.
½ tsp. celery salt.

Cook onion and celery with the milk in double boiler or stew pan 15 minutes and add mashed potatoes. Rub through a strainer. Melt butter in double boiler, add flour, and when smooth, the milk which has been strained. Season, cook about 5 minutes and serve.

MOCK BISQUE OR TOMATO SOUP

1 can tomatoes.
1/8 tsp. soda.
3 tbsp. butter.
4 tbsp. flour.
1 qt. milk.
1 tsp. salt.
1/8 tsp. pepper.

Stew tomatoes till soft, strain and add the soda. Melt butter in double boiler, add flour, and when smooth, add the milk gradually. Cook 10 minutes. Add seasoning and hot strained tomatoes last. Serve at once. If the soup should curdle, beat it with a Dover egg beater.

Cheese Sticks: Cut bread in slices, spread thinly with butter. Cut in inch strips, sprinkle with grated or sliced cheese and bake till a delicate brown.

Croutons: Cut stale bread into one-half inch slices, remove crusts, and cut bread into one-half inch cubes. Brown in a hot oven and serve with soup.

Preparation of Vegetable Stock: The vegetables are cooked until very soft and, with the exception of potatoes, usually pressed through a strainer. The vegetables, thus prepared, together with a part or all of the water in which they have been cooked can be used for stock. However, if the vegetables are strong flavored, this water may or may not be used, according to the taste of the individual.

QUESTIONS ON LESSON 11

1. What is a cream soup and how are they made?
2. Why should cream soups be thickened? What is this process called?
3. What determines the amount of flour in binding a cream soup?
4. How is vegetable stock prepared? For what used?

LESSON 12

TAPIOCA

Tapioca is made from the starchy roots of the Cassava tree. It is grown in tropical countries. What countries? The root is ground, purified and dried; then the dry paste is broken into the small pieces which we know as tapioca. It is almost pure starch, so it is cooked with milk and eggs or fruit added to it to improve the flavor and increase the food value.

Practical Work: Cook Apple Tapioca.

APPLE TAPIOCA

¾ c. tapioca.
3 c. boiling water.
½ tsp. salt.
½ c. sugar.
5 apples.

If *pearl tapioca* is used, soak in cold water over night or several hours. *Minute tapioca* need not be soaked. Pour over it the boiling water and cook in a double boiler until transparent. Stir often and add salt. Pare and slice apples, put into a baking dish, sprinkle over them the sugar, and if liked, lemon juice. Pour over them the tapioca and bake until apples are very soft. Serve hot or cold. A delicious variation can be made by using half pears or canned quinces and half apples.

QUESTIONS ON LESSON 12

1. From what is tapioca made?
2. What is the chief food principle in tapioca?

LESSON 14

CARE OF THE DINING ROOM

Much of the comfort and cheerfulness of the family depend upon the dining room and its appointments. No matter how plain the furnishings may be, they should be appropriate and well cared for. The rug on which the table stands, should be plain or a small pattern. It is much better to have a rug than a carpet. The rug may be taken out of doors frequently to be beaten and exposed to the air.

The table, well polished at all times, should have on it between meals an attractive centerpiece of white, or colors harmonizing with the wall and rug. A small plant or a few flowers will do much to brighten the room. Chairs should be placed where convenient, not against the wall, unless there is a chair rail.

A buffet or serving table is pretty and useful, the drawers to hold the linen and silver, and the top with cover to match the centerpiece, on which are placed a few attractive bits of china, glass or silver. During meals, it is the place for extra dishes and silver. A cabinet for storing choice china and glass add to the attractiveness of the room.

After a meal remove all dishes to the kitchen or butler's pantry, remove the cloth and put the centerpiece and flowers on the table. Brush up all crumbs from the floor. After breakfast, air the room thoroughly and dust all the furniture and any dishes open to the air.

Once a week sweep the room thoroughly, cleaning the silver and wiping out all cabinets and drawers. Have the room and everything in it at all times spotlessly clean. The items below are suggestions as to the order of a weekly cleaning of a dining room.

Clean movable draperies, ornaments and smaller furniture and take them from the room. Dust and roll up the shades. Remove smaller rugs and clean them. Brush, dust and cover larger pieces of furniture. Brush high woodwork and walls. Dust picture frames and wipe backs of smaller pictures. Sweep heavier rugs and roll up. Dust gas fixtures. Clean the floor.

TABLE DECORATIONS

Every good housekeeper takes pride in her table. Flowers in a low basket or vase, or a low plant, lends to the attractiveness as well as the cheerfulness of the meal. Dainty place cards and bonbon boxes are very pretty, made to carry out the idea and color scheme of the hostess.

SETTING THE TABLE

Good service is not a fad, and back of every correct arrangement there is a reason which will be apparent to the guest from the ease with which the meal is served.

Cover the table with a silence cloth made of canton flannel or felt. This is to protect the table, to deaden the sound made by setting down the china, and to improve the appearance of the linen. Spread the cloth smoothly and evenly, having the center of the cloth in the center of the table.

Place a service plate in the center of each cover, allowing from twenty-five to thirty inches in length and fifteen inches in depth for each. The plate, as well as the cutlery and silver, is set one-half inch from the edge of the table. Place the dinner knife at the right of each service plate, the cutting edge toward the plate; next to it and parallel, the soup spoon (bowl up). Place the forks at the left of the service plate (tines up) in order of use, the first to be used being the farthest from the plate. Place the teaspoons at the right of the knives or at the top of the plate as space permits. At the left of the forks lay the napkin, with one open edge toward the plate and one toward the table. Near the point of the knife set the water glass. Place the bread and butter plate at the left side above the forks.

When the host is to carve, place the carving knife and fork and serving spoons on his right. Arrange the tea or coffee service neatly and conveniently in front of the hostess. Arrange the centerpiece. Arrange chairs at a sufficient distance from the table so they need not be moved when people are seated. The buffet should contain the water pitcher, tray (covered with doily), extra napkins and silver for an emergency. Also a plate and napkin for removing crumbs. Fill water glasses

two-thirds full and light candles, if any, two minutes before dinner is announced.

To announce a meal, the waitress steps to the door of the living room and speaks to the hostess, saying: "Dinner is served."

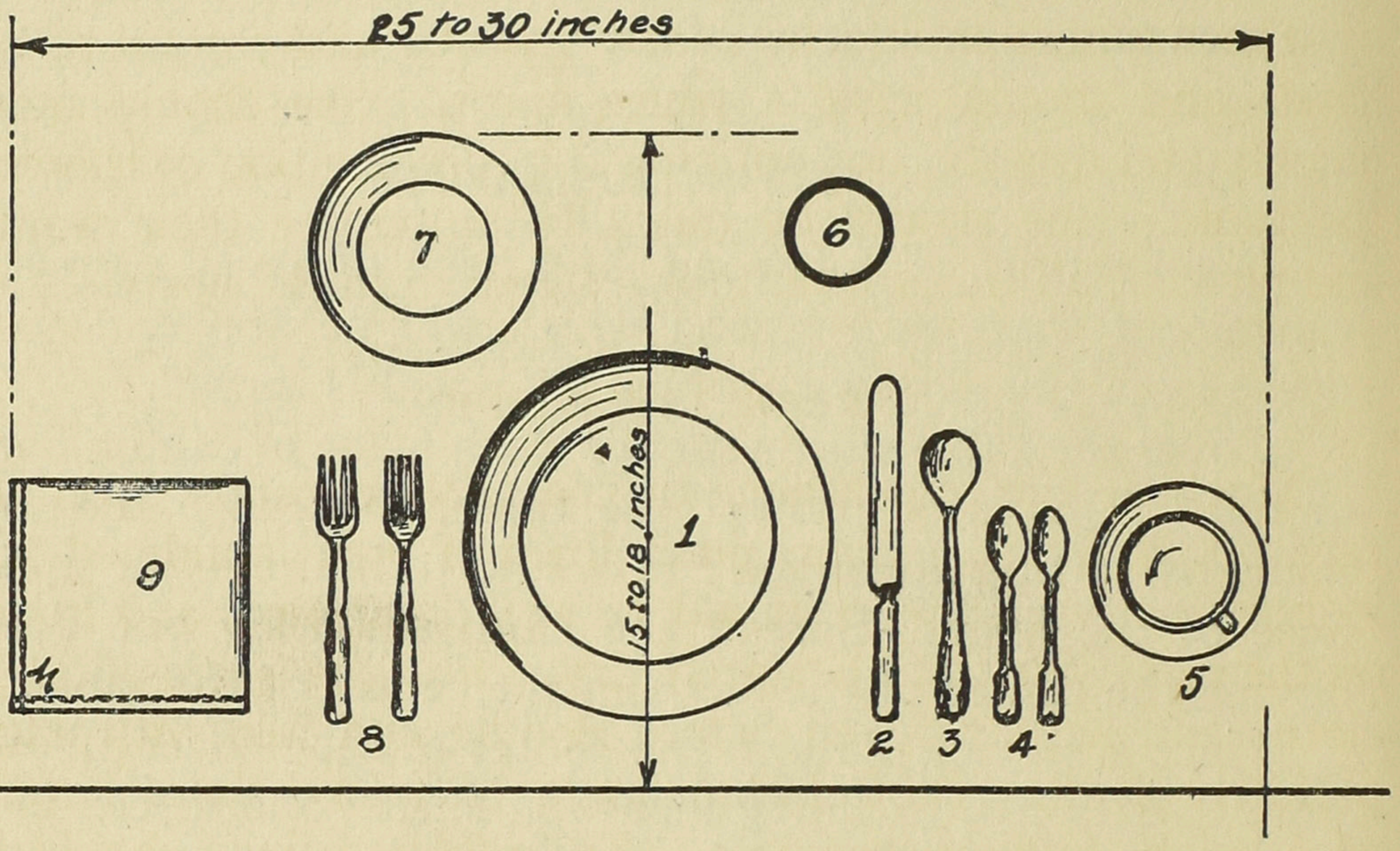


DIAGRAM OF TABLE SETTING FOR ONE INDIVIDUAL

1—Dinner plate
2—Knife
3—Soup spoon
4—Tea spoons
*5—Coffee or tea cup saucer
6—Water glass
7—Bread and butter plate
8—Forks
9—Napkins
*10—Vegetable dish

*To be placed during the meal.

TABLE SERVICE

Heat all dishes for food that is to be served hot and chill those for cold articles. When passing a dish, hold it so the thumb will not rest upon the upper surface. When the dishes are being served by a person at the table, the waitress should stand at his left holding the tray in the left hand and near the table. Take on it one dish at a time and place in front of the person for whom it is intended, using the right hand. In passing a dish from which a person is to help himself pass to the left side and hold the tray low.

In passing coffee and filling water glasses, go to the right side. Serve hostess first, then guest of honor at her right side,

and so on around the table. Remove everything pertaining to one course before serving another, the individual dishes first, then those holding food; never piling one on top of another. Fill glasses between every course, handling them near the bottom. Before serving the dessert, remove crumbs. Do not let the table become disorderly during the meal.

The waitress should be neatly gowned and careful of her hands and should wear a white apron. She should move quickly and quietly, not noticing the conversation of those at the table. She should be quick to anticipate their wants, and must at all times watch for a signal from the hostess.

CARE OF TABLE LINEN

Much of the appearance of the table depends upon the care of the linen. Even plain linen if well laundered will look attractive. Linen should be well dampened, and ironed on the right side until perfectly dry. Pull the edges of tablecloths and napkins even before ironing and fold with edges perfectly even. Tablecloths should be folded twice lengthwise before folding crosswise. Embroidered linen should be ironed on the wrong side on a piece of flannel or a Turkish towel to bring out the design.

CRANBERRIES

The cranberry bush is a small evergreen shrub growing in marshy places. The flowers are small and of a beautiful rose pink color. The berries are ripe in the fall, when they are gathered, put into crates and stored until late in October or early in November. They are very acid and need a large amount of sugar to make them palatable. On account of the large quantity of acid contained, they are a healthful food. They are used to make *sauce*, *jelly* and *pies*. Let the cranberries stand in boiling water for a few minutes, then pour off. Less sugar can then be used.

TO PREPARE CRANBERRIES

2 c. cranberries. 1 c. sugar.
⅔ c. cold water.

Pick over and wash cranberries, put into a granite sauce pan. Sprinkle the sugar over them, add the water. After they begin to boil, cook slowly 10 minutes, closely covered without stirring. For jelly strain the fruit before sugar is added and boil till it jellies.

Always use a granite pan and wooden spoon when cooking cranberries. Why?

QUESTIONS ON LESSON 14

1. What is the purpose of a silence cloth?
2. When a person is to help himself, to which side should the waitress pass?
3. At which side should individual dishes be placed and removed?

LESSON 15

Make up lessons lost in last half Thanksgiving week.

LESSON 16

REVIEW

LESSON 17

TESTS

LESSON 18

ITALIAN POLENTA

Mould cornmeal mush in baking powder can. When cold, slice and sprinkle each slice with cheese, salt and paprika. Bake in hot oven until cheese is melted. Put on platter and pour tomato sauce around it.

TOMATO SAUCE

Cook 1 tbsp. fat and 2 tbsp. minced onion together. Add ½ tbsp. cornstarch and cook 2 minutes. Add 1 c. unstrained tomatoes, ¾ tsp. salt, speck pepper. Cook until it thickens.

QUESTIONS ON LESSON 18

1. Why is Italian Polenta a conservation dish?
2. Name the food principles found in Italian Polenta and ingredient supplying each.

LESSON 19

PROTEINS—MILK

Problem: *Some foods contain protein. How should protein be cooked? What is its value to the body?*

Milk is composed of *water, fat, mineral matter,* a little *sugar* and *casein;* the last is *protein,* or tissue-building element. From this we can see that milk contains all five of the food elements. It is therefore a very valuable food. It is easily digested by most people, and this together with its food value makes milk the principal food for babies and invalids.

Milk is of great commercial value. Its *fat* is used as *cream* and as *butter.* The *casein* of milk is made into *cheese. Sour milk* and *buttermilk* are very much valued as beverages.

Milk is almost as good a food for germs as it is for human beings. All milk contains some germs, which, in some instances, are harmful. But all milk contains a harmless germ called a "sour milk" germ, which, as its name suggests causes milk to sour. When milk sours, the casein which has been dissolved becomes solid and separates from the rest of the milk. The solid part of sour milk is called *curd* and the liquid part *whey.*

When milk is heated you will notice that a thin scum forms on the top. This is a part of the *protein* which is hardened by heat.

On account of the ease with which milk supports bacterial life, milk is apt to be a common source and carrier of disease germs. Milk is an important food, but, unless it is properly cared for, it can become as harmful as it is healthful.

Observe the following directions for the care of milk:

1. Before opening a milk bottle wipe it well to take off dust particles.

2. Milk should be kept in clean containers and in a sweet, clean, cool place as germs do not grow at a low temperature.

3. Always have the container covered not only to keep out dust and flies, but to prevent the milk from absorbing odors of any food near which it is placed.

4. As odors travel upward in a refrigerator, always keep the milk on the lowest shelf.

5. Milk is *pasteurized* by putting it in clean bottles and placing the bottles in a pan of cold water which is gradually heated to a temperature of 160 to 165 degrees Fahrenheit and then quickly cooled.

JUNKET

1 pt. milk. 3 or 4 tsp. sugar.
¼ tsp. vanilla.

One tbsp. liquid rennet or 1 junket tablet dissolved in 1 tbsp. water.

Heat milk in a double boiler till lukewarm. Add sugar and stir until dissolved. Stir in vanilla and rennet and pour into a dish. Let stand in a warm place undisturbed until it thickens, then set in a cool place till firm. Sprinkle with cinnamon or nutmeg, and serve with cream and sugar.

COTTAGE CHEESE

Heat slowly, thick sour milk on the back of the stove or in a pan of hot water. As soon as the *curd* separates from the *whey*, strain through a cloth, allowing it to drip until rather dry. Put in a bowl and stir with a fork, adding salt. pepper and cream to taste.

QUESTIONS ON LESSON 19

1. Name the food principles in milk.
2. What is the fat of milk called?
3. What is made from the fat of milk?
4. What is the important protein of milk called?
5. What is made from the protein of milk?
6. Explain the souring of milk.
7. Give five points to be observed in the care of milk in the home.
8. What is curd? What is whey?

LESSON 20

BAKED BREAD AND COTTAGE CHEESE

4 medium slices of bread.
1 egg.
1 egg yolk or an egg white.
2 c. milk.
¼ tsp. salt.
spk. cayenne pepper.
Butter.
1 c. cottage cheese.
¼ tsp. soda.
½ tsp. onion juice.
Parsley, pimento or piccalilli or chili sauce or nuts if desired.

Butter the bread and cut the slices in squares or diamonds. Place a layer, buttered side down, on the bottom of a large shallow baking dish. Dissolve the soda in a little of the milk and with it mix the cheese to a soft cream. Add parsley and pimento or sauce if desired. Spread a thick layer of the cheese lightly over the bread and cover with the rest of the bread. Beat the eggs well, mix them with the milk and seasonings and pour them over the bread. Bake in a slow oven till a knife thrust into the custard comes out clean.

QUESTIONS ON LESSON 20

1. Name the food principles found in Baked Bread and Cottage Cheese and tell in what ingredient each is found.
2. How does cheese compare in price per pound with beefsteak?
3. How does cheese compare in nutritive value with beefsteak.
4. Compare the waste in 1 lb. of cheese with 1 lb. of beefsteak.
5. Which is the cheaper food?

LESSON 21

RICE AND CHEESE

1 c. boiled rice. 4 tbsp. cheese.
1 c. cream or white sauce.

Make sauce, add rice and cheese grated or cut in small pieces.

Pour into baking dish, sprinkle with bread crumbs and bake about 20 minutes or until brown.

QUESTIONS ON LESSON 21

1. Name the rice producing countries.
2. What nation uses rice as its principal food?
3. Why is rice valuable as a food?
4. What food element is lacking in rice?
5. With what is rice combined to make it a perfect food?

LESSON 22

REVIEW

LESSON 23

PROTEINS—EGGS

Eggs contain *protein, mineral matter, water, very little fat and no carbohydrate.*

Besides the yolk, white and shell, with which we are familiar, we find that the shell has a white lining and that there are cords at each end of the egg to hold the yolk in its place in the center of the egg.

Eggs are nourishing and if carefully cooked are easily digested. The white of an egg is chiefly water and albumen. What effect has heat on albumen? When eggs are cooked the albumen gets hard. Boiling makes albumen tough and indigestible. Is it a good plan to boil eggs?

Eggs should be cooked just below the boiling point in order to make them digestible. Raw eggs are more easily digested than cooked.

Egg shells are full of tiny holes or pores. When eggs stand for some time, air enters through the pores, dries up the water in the egg and it spoils. Eggs also absorb odors and take up germs from the places where they are laid. Germs enter the pores and spoil the egg.

To keep eggs from spoiling, we must *either shut out the air or prevent germs from growing in them.* To keep air out, we pack eggs in salt, sawdust, grain or other materials. *Water glass* which can be bought at the drug store is the best material in which to pack them. One quart of water glass is dissolved in ten quarts of water and the eggs placed in the solution. A sticky covering is formed and air cannot enter.

To prevent the growth of germs, eggs are put into cold storage; that means they are kept at a temperature just above the freezing point, at which low temperature germs cannot grow.

To test eggs for freshness: (1) *Shake egg; if it rattles, it is spoiled.* (2) *Place eggs in a pan of water; if they float they are stale.* (3) *Hold egg to the light; if cloudy or dark, they are not fresh.*

Egg and milk mixtures must be cooked at a *low temperature* to prevent them from curdling, scorching or becoming

indigestible. If eggs are used to thicken a mixture or to add richness, they should be beaten very little. If they are used to make a mixture light, they are beaten stiff or dry.

Hard Cooked Eggs: Cook eggs in water just below the boiling point 20 minutes. If to be shelled, drop into cold water.

Soft Cooked Eggs: Cook eggs in water just below the boiling point from 6 to 10 minutes. Serve at once, as they harden if allowed to stand in the hot shell.

Practical Work—Demonstrate: Poached Eggs.
Eggs Cooked in Shell.

POACHED EGGS

Toast a slice of bread for each egg. Before toasting, trim neatly, or cut with a round cutter. Scrape off any burnt portion. Have a very clean shallow pan nearly full of boiling salted water. Remove all of the scum and let the water simmer. Break each egg gently into a saucer and slip it into the water. If the egg is not entirely covered by water, dip water over it with a spoon and when a film has formed on the yolk, take up each egg with a skimmer. Drain, trim the eggs and place on the buttered toast. Put a piece of butter and a little salt and pepper on each egg.

FLOATING ISLAND

2 c. milk.
Yolks of three eggs.
½ c. sugar.
⅛ tsp. salt.
¼ tsp. vanilla.

Heat the milk in a double boiler. Beat eggs slightly, add sugar and salt. Pour the hot milk gradually on the eggs, stirring constantly. Cook in a double boiler till the mixture thickens and a coating is formed on the spoon. Take custard from the fire before it is done, as the heat of the boiler cooks it even while it is being turned out. If it begins to curdle, set the upper part of the double boiler immediately into a pan of cold water and beat with a Dover egg beater. Strain if necessary, cook and flavor. The whites of eggs may be beaten

and sweetened with powdered sugar, using 1 tbsp. of sugar for each egg. Put in a pan on top of hot water and bake till brown in the oven, or cook by dropping from a spoon in hot water, on the top of the stove. Serve on the custard.

BAKED CUSTARD

1 pt. milk.
2 or 3 eggs.
6 tbsp. sugar.
⅛ tsp. salt.

Scald the milk; add the sugar and salt to the beaten eggs, and pour the milk slowly over them. Put in a buttered baking dish, grate nutmeg over the top. Set the dish in a pan of hot water, and bake till a knife, when inserted, will come out clean. If baked too long the custard will separate and become watery.

QUESTIONS ON LESSON 23

1. Name the food principles in eggs.
2. At what temperature must eggs be cooked and why?
3. Explain the spoiling of eggs.
4. Give three ways to prevent the spoiling of eggs.
5. Give three ways to test the freshness of eggs.
6. What happens when mixtures of egg and milk are over-cooked?
7. Why is a baking dish containing an egg and milk mixture placed in a pan of hot water?

LESSON 24

POTATO CHOWDER

6 potatoes cut in cubes.
¼ lb. salt pork, diced.
2 tbsp. onion chopped.
1 pt. water.
1 tsp. salt-pepper.
1 pt. milk.

Cook pork and onion together until a delicate brown. Add the water and potatoes. Cook until potatoes are tender but not mashed. Add milk and thicken with 1 tbsp. flour or flour substitute wet in cold water. Season. Serve hot.

Make an outline of the food principles found in potato chowder and the form in which found and the ingredient in which found.

LESSON 25

PROTEINS—FISH

Fish contain four of the food principles: *protein, fat, mineral matter and water.*

There are two kinds of fish, *fresh* and *salt water* fish. We usually get fresh water fish in this part of the country. Fish includes oysters, clams, crabs, lobsters as well as such fish as salmon, pickerel, trout, white fish, etc.

Fresh fish has firm flesh, bright eyes and red gills. It should be kept on or near ice as it decays quickly. If fish is to be kept for any time it should be cleaned and sprinkled with a little salt before putting it away.

Fish are prepared for the market in various ways:

1. So they can be shipped long distances in good condition.
2. To give different flavors to make a variety for the diet.
3. To prevent them from decaying and so that people in one locality may have fish native to a distant locality.

Methods of preserving fish:

1. Salting, smoking, drying.
2. Canning in oil.
3. Pickling with spices.
4. Cold storage.

Preserved fish are not as easily digested as fresh fish and the food value is lessened in some instances. Salt hardens the fibres in most fish.

CODFISH BALLS

1 c. salt codfish.
2 c. diced potatoes, raw.
½ egg.
½ tbsp. butter.

Shred codfish, add potatoes, cover with boiling water, cook until potatoes are tender. Drain and mash. Add beaten egg and butter, shape in tbsp. and saute or fry in hot fat. Serve hot. They may be shaped in flat cakes and rolled in flour.

QUESTIONS ON LESSON 25

1. Why is salt not added to the water in which cod fish and potatoes are cooked?
2. Why is it especially necessary to dry the fish and potato mixture before frying?
3. What ingredient do fish balls contain that hardens immediately on being heated?
4. What is the price per package of cod fish?
5. How do you tell a fresh fish?
6. What fish are common to this locality?

LESSON 26

VEGETABLE SOUP

1 slice (¼ lb.) salt pork diced.
½ c. chopped onions.
1 c. chopped carrot.
½ c. chopped turnip.
1 stalk celery, chopped.
¼ c. rice.
3 qts. water.
2 tsp. salt.
2 c. diced potatoes.
1 pt. tomatoes.

Brown salt pork and onions lightly, add carrot, turnip, celery, rice, water and salt. Cook until vegetables are tender. Add potatoes and tomatoes. Cook until potatoes are tender, then season to taste. Noodles may be added with the potatoes.

QUESTIONS ON LESSON 26

1. Why is this a conservation recipe?
2. What food principle is lacking?

LESSON 27

PROTEIN—MEAT

Animals used for meat are cut into halves lengthwise, each half being called a "*side*." The sides are then cut into "*quarters*" and the quarters into smaller pieces called "*cuts*."

Some of the common cuts of beef are: (1) neck; (2) flank; (3) rump; (4) round; (5) ribs; (6) porterhouse; (7) loin; (8) tenderloin.

Cuts of veal or lamb: (1) chops (from ribs); (2) legs; (3) breast.

The toughest cuts of meat come from the parts of the animal which are exercised the most. The neck and legs are tough, while the ribs and loins are tender. The meat of an old animal is tougher than that of a young one. If tender meat is not properly cooked it becomes tough.

Stock is the extract of meat and bone used as a foundation for soup. It is usually made from tough cuts of meat.

There are three ways of cooking meat in water:

1. *When all of the nutriment is to be drawn out into the water*, as in soups, cut the meat into small pieces, soak in cold water and cook slowly at a low temperature from 4 to 7 hours.

2. *When the nutriment is to be part in the water and part in the meat*, as in stews, cut the meat in small pieces and pour boiling water over it. This prevents the escape of nearly all the juices. Cook 2 to 5 hours or till meat is tender.

3. *When all the nutriment is to be left in the meat*, as in pot roasts, leave the meat whole and sear all the outside. This prevents the escape of the juices. Put a small amount of

boiling water on the meat and simmer slowly from 4 to 5 hours or till tender.

Tests for freshness: Fresh meat has a good *color*, is *firm* to the touch and has a good *odor*.

Beef is bright *red*, Veal is reddish *pink*, Lamb is *pale pink* and Pork is *pink*.

Beef fat is pale *creamy yellow*, while the other fats are more *white*, pork having the *whitest fat*. All meats are dark in color when exposed to the air, and as the flesh decays, it becomes soft.

TO MAKE STOCK

Cut the meat in small pieces to expose all the surface possible and put it into cold water with salt. Allow it to stand or soak one-half hour before heating, to draw out the juices. Heat gradually and simmer till the meat is in shreds, the bones clean and all the nutriment possible extracted. This will take 6 to 7 hours. Cheap cuts of meat are used for soup, such as the shin or rump bone of beef or the knuckle of veal. The water in which fresh meats are boiled may be cooked down, seasoned and used for stock.

The cover of the kettle should fit closely to keep in the steam. When the meat is in shreds, strain and allow the soup to cool so that the fat may come to the surface in the form of a cake and be removed. The stock may then be reheated and served alone, or with the addition of vegetables.

About two-thirds of the meat should be lean, the other third bone and fat.

Do not wash meat by putting in water to soak, but wash quickly with a wet cloth.

A GENERAL RULE FOR STOCK

2 lbs. shin of beef.
2 tsp. salt.
2 qts. cold water.
8 pepper corns.
4 cloves.
1 tsp. mixed herbs.
⅛ tsp. celery seed.
4 allspice.

Wipe and cut the meat and bone in small pieces. Put into the water with salt, and soak ½ hour before heating,

heat gradually. Add seasoning and simmer 4 to 5 hours. Strain and cool quickly. When ready for use, remove all fat, reheat and season to taste.

BEEF STEW

2 lbs. beef.
1 onion.
4 small potatoes.
½ c. carrot and turnip diced.
2 tsp. salt.
spk. pepper.
Hot water to cover.

Wipe the meat, remove from bone and cut in 2-inch pieces, sprinkle with salt and pepper and dredge with flour. Melt some of the fat in a frying pan, add meat and the onion sliced, stir constantly that the surface may be quickly seared. Put into a kettle; rinse the frying pan with hot water that none of the goodness may be lost. Add remaining bone and fat and vegetables, cover with boiling water and boil 15 minutes, then simmer until the meat is tender, about 3 hours. Parboil potatoes and add to stew 20 minutes before it is done. Remove large bones and fat and thicken the stew with 2 tbsp. flour wet in cold water. Dumplings may be added 10 minutes before the stew is finished. Serve on a warm platter.

DUMPLINGS

1 c. white flour.
1 c. corn flour.
½ tsp. salt.
4 tsp. baking powder.
About 1 scant c. milk.

Sift the dry ingredients, stir in the milk slowly, mixing with a knife till a soft dough is formed. Dip a spoon into the boiling stew, then take up a spoonful of dumpling and drop into the stew, letting it rest on the meat and potatoes. Cover closely and steam 10 minutes without uncovering. Do not let the stew stop boiling after the dumplings are added. Serve immediately.

QUESTIONS ON LESSON 27

1. Name the three ways of cooking meats in water.
2. What is stock?
3. Name a cut of meat suitable for stock.
4. Describe the making of stock.
5. What quality of meat should be used for soups and stews?
6. Describe the making of stew.
7. How should tender meats be cooked and why?
8. How should tough meats be cooked and why?
9. Give two points to be observed in the successful cooking of dumplings.
10. What is the advantage of cooking vegetables and dumplings with meat?

LESSON 28

REVIEW—PROTEIN

LESSON 29

BREADS

"Bread is the staff of life."

Spring wheat flour is best for making bread as it contains *gluten*. Gluten is a grey tough elastic substance, not soluble in water, and, because it is elastic, holds the gas developed in the bread dough.

Winter wheat flour is better for making *pastry* and *cakes*, as it lacks the gluten and contains more starch.

Bread flour will not keep its shape when squeezed in the hand, while pastry flour will.

Bread flour is more granular than pastry flour.

Bread is made of a mixture of *flour*, *yeast*, *salt* and *liquid*.

Flour substitutes may be used in bread. Twenty-five per cent. substitute, one-half corn flour and one-half rye or barley flour, together with seventy-five per cent. wheat flour makes a good combination.

Yeast consists of a mass of microscopic plants which, under certain conditions of *warmth*, *moisture*, *food* and *air*, grow very rapidly.

Yeast is put into bread to make it rise and thereby making it light. The yeast plant takes nourishment from the gluten and starch in the flour which together with the moisture and warmth of the dough causes the plants to grow very rapidly. In growing, the yeast plant changes the starch into sugar and the sugar into alcohol and carbon dioxide. The carbon dioxide, as it is formed, endeavors to escape but is prevented from doing so by the gluten in the dough which stretches and confines the gas, forming bubbles. As the plant continues to grow in the mixture, the gas bubbles increase in number and size and the dough rises and is thereby made light. It grows best at a temperature of 78 to 90 degrees, Fahrenheit. However, it may be forced to grow faster by increasing the temperature, just as hot house plants are. At about 130 degrees, it ceases to grow and by heat greater than this, it is killed. Cold checks its growth but does not kill it for even after being frozen, if thawed, it will grow again.

Bread is kneaded: (1) to mix the ingredients; (2) to fold in air; (3) to make the gluten elastic, so it will stretch when the gas bubbles are formed.

Bread is kneaded enough: (1) when it is covered with tiny air blisters; (2) when it can be left on a board a few minutes without sticking; (3) when it is cut open with a knife, it is full of even tiny bubbles.

Bread is kneaded a second time: (1) to break up large gas bubbles formed during rising; (2) to shape it for baking.

Bread is baked: (1) to kill the yeast; (2) to drive off gas and alcohol; (3) to cook the starch and make the bread more digestible; (4) to form a brown crust and make it more attractive.

A perfect loaf of bread: (1) is smooth on the top and sides; (2) has an even brown crust; (3) has a fine grain and tender crust; (4) has a nutty, sweet flavor.

A temperature of 350 to 400 degrees Fahrenheit is best for baking bread. If no thermometer is used, the test may be made with unglazed paper, which should become a medium brown when left in the oven 5 minutes.

Bread is done when it will slip out of the pan easily and will not sing, sounds light when tapped on bottom and if touched on the bottom of pan with a dampened finger, it sounds like a hot iron, it shows that all the moisture has evaporated.

OATMEAL BREAD

3 c. rolled oats.
3 c. boiling water.
1 tbsp. lard.
1½ tsp. salt.
¼ c. sugar.
1 cake compressed yeast dissolved in 1 c. water.
flour to make dough.

Scald rolled oats with boiling water, add lard, sugar and salt and when lukewarm, the dissolved yeast. Add flour to make a dough stiff enough so that the spoon will stand upright in it. Beat well as the flour is added. Let rise 2 or 3 hours or until it doubles in size. Beat down, put into greased pans, let rise about ½ to ¾ hours or until light. Bake 1 hour in moderate oven.

1. What four materials are necessary to make bread?
2. Why is some wheat flour necessary in making yeast bread?
3. What should be the temperature of all materials mixed with yeast? Why?
4. Why should bread dough be kneaded or beaten?
5. When is spoon bread stiff enough?
6. In what part of the country is spring wheat grown? Winter wheat?
7. What is gluten?
8. To what food principle does gluten belong?
9. What is yeast?
10. In what forms can yeast be purchased at the grocery store?
11. What is the best temperature for the growth of yeast? Why?
12. Name four conditions necessary for the growth of yeast.
13. Give four reasons for baking bread.
14. Give the oven test for baking bread.
15. When is bread done?

LESSON 30

BREAD—(continued)

LESSON 31

ACIDS AND ALKALIES

Substances which have a sour taste are called acids; example, acids in fruits, in sour milk and molasses.

Alkalies are substances having a soapy or brackish taste; example, potash, soda and lime.

PROPORTIONS OF ACIDS AND ALKALIES

1 level tsp. soda to 1 pt. thick sour milk.
½ to 1 level tsp. soda to 1 c. molasses.
2 level tsp. baking powder to 1 c. flour.

CORNMEAL GINGERBREAD

1 c. cornmeal.
1 c. wheat flour.
1 tsp. soda.
¾ tsp. salt.
2 tsp. ginger.
1 egg (may be omitted).
1 tsp. cinnamon.
½ tsp. cloves.
1 c. sour milk.
1 c. milk.
2 tbsp. shortening.

Sift dry ingredients, combine milk, molasses and beaten egg. Add to dry ingredients with the melted shortening. Beat well. Bake in moderate oven.

QUESTIONS ON LESSON 31

1. Name the liquids with which soda is used in baking.
2. Give proportion of soda to 1 c. liquid.

LESSON 32

BATTERS AND DOUGHS

Quick bread mixtures are either *batters* or *doughs*. They are so called to distinguish them from yeast breads, which require a longer time for preparation.

Batter means that which can be beaten, and *dough* means that which is mixed stiff enough to be molded.

Proportion for thin batter: 1 scant c. liquid to 1 c. flour.
Proportion for thick or drop: 1 scant c. liquid to 2 c. flour.
Proportion for a dough: 1 scant c. liquid to 3 c. flour.
A *sponge* is a drop batter to which yeast is added.

No bread should be eaten steaming hot, because in this state the inside part or crumb forms a pastry mass in the mouth which is not easily digested.

METHOD OF COMBINING INGREDIENTS

Stirring: Hold the bowl flat on the table and the spoon so the bottom will scrape the bottom and sides of the bowl; stir round and round until you cannot tell one ingredient from the other.

Beating: Tip the bowl slightly, hold the spoon so the side will scrape the bottom and side of the bowl; bring the spoon up and continue until light and full of bubbles.

Folding: Bring the material from below gently over the ingredient added. Continue to cut and fold until thoroughly mixed but do not beat or stir.

RULES FOR MIXING QUICK BREAD

Sift dry ingredients.
Mix liquid materials.
Stir into dry materials.
Add shortening melted.
Beat 2 or 3 minutes.
Bake in quick oven.

Note: *Stir* mixtures to make them *smooth*. *Beat* mixtures to make them *light*. *Cut* the stiff whites of eggs into mixtures.

WHEAT SUBSTITUTES

These weights and measures were tested in the Experimental Kitchen of the U. S. Food Administration, Home Conservation Division and of the U. S. Department of Agriculture, Office of Home Economics.

In substituting for one cup of flour, use the following measurements. Each is equal in weight to a cup of flour.

Barley	1⅜ cups
Buckwheat	⅞ cup
Corn Flour	(scant) 1 cup
Corn Meal (coarse)	⅞ cup
Corn Meal (fine)	(scant) 1 cup
Cornstarch	¾ cup
Peanut Flour	(scant) 1 cup

Potato Flour	¾ cup
Rice Flour	⅞ cup
Rolled Oats	1½ cups
Rolled Oats (ground in meat chopper)	1⅛ cups
Soy Bean Flour	⅞ cup
Sweet Potato Flour	1⅛ cups

This table will help you to make good griddle cakes, muffins, cakes, cookies, drop biscuits and nut or raisin bread without using any wheat flour.

You will not need new recipes. Just use the ones your family has always liked, but for each cup of flour use the amount of substitute given in the table. You can change your muffin recipe like this:

OLD RECIPE	NEW RECIPE
2 c. wheat flour.	1⅜ c. barley flour.
3 tsp. baking powder.	1 c. (scant) corn flour.
¼ tsp. salt.	4 tsp. baking powder.
1 tbsp. sugar	¼ tsp. salt.
1 c. milk.	1 tbsp. sugar.
1 egg.	1 c. milk.
1 tbsp. fat.	1 egg
	1 tbsp. fat.

The only difference is the substitution for the wheat flour. Everything else remains the same. You can change all of your recipes in a similiar way.

GOOD COMBINATIONS OF SUBSTITUTES

You will get better results if you mix two substitutes than if you use just one alone. Some good combinations are:

Rolled Oats (ground) .. or Barley flour ..... or Buckwheat flour ..... or Peanut flour ..... or Soy bean flour	and	Corn flour or Rice flour or Potato flour or Sweet potato flour or Corn meal

CAUTIONS

1. All measurements should be accurate. A standard measuring cup is equal to a half pint.

2. The batter often looks too thick, and sometimes too thin, but you will find that if you have measured as given in the table the result will be good after baking.

3. Bake all substitute mixtures more slowly and longer.

4. Drop biscuits are better than the rolled biscuits, when substitutes are used.

5. Pie crusts often do not roll well and have to be patted on to the pan. They do not need chilling before baking.

BAKING POWDERS

Composition of Baking Powder { 30% Soda
60% Cream of Tartar
10% Rice flour

Soda is an *alkali* and is made from common salt.

Cream of Tartar is an *acid* substance obtained from crystals found in the bottom and on the sides of wine casks. When an acid and an alkali are united in proper proportions and moistened, carbonic acid gas is formed. This gas, seeking to escape, lightens the dough, hence baking powder mixtures should be baked as soon as possible after mixing.

Cheap baking powders are often adulterated with alum, which is injurious.

Doughs may be raised by the following methods:

1. By the expansion of air beaten into the dough.

2. By gas which is formed in three ways: (*a*) by using sour milk and soda; (*b*) by using molasses and soda; (*c*) by using baking powder.

3. By air beaten into the whites of eggs and folded in the dough.

4. By gas formed by the growing of the yeast.

NOTE: When eggs, beaten separately, are used in a recipe, less baking powder is required. Deduct ½ tsp. baking powder for each egg.

QUESTIONS ON LESSON 32

1. Name five kinds of flour that may be substituted for wheat in baking.
2. Give the proportion of baking powder to flour.
3. What may be substituted for baking powder in quick bread mixtures and why?
4. What liquids may be used in quick bread mixtures?
5. How does baking powder raise mixtures?
6. Give two reasons for omitting eggs in muffins.
7. Give composition of baking powder.
8. Give four methods of raising mixtures.

BAKING POWDER BISCUIT

2 c. flour (⅓ substitute).
4 tsp. baking powder.
1 tsp. salt.
2 tbsp. lard.
1 scant c. milk.

Mix dry ingredients. Cut in lard with knife or mix lightly with fingers. Add milk gradually to form a soft dough, mixing with a knife. Turn on a floured board. Roll to three-fourths inch thickness, cut and bake in hot oven about 15 minutes.

MUFFINS

Always grease muffin tins with lard or some substitute; never butter as it burns too quickly. Then dust with flour.

1 c. flour
Sub. equal to 1 c. flour
4 tsp. baking powder
½ tsp. salt
2 tbsp. sugar
1 c. milk
1 egg
2 tbsp. melted fat

Mix in order given and bake in muffin tins.

SHORT CAKE

Wash strawberries before hulling. Peaches, oranges, pineapples and red raspberries may also be used for short cake. If the fruits are not juicy, sugar and a little water may be added. Let them stand a short time before using.

STRAWBERRY SHORTCAKE

2 c. flour (~~use ⅓ substitute~~)
4 tsp. baking powder.
½ tsp. salt.
2 tbsp. lard.
2 tbsp. butter.
1 scant c. milk.

Mix as for baking powder biscuit, roll ¾ inch thick and bake in a quick oven. Split carefully with a thread or hot knife and spread with butter. Sweeten strawberries to taste, crush slightly and put them between and on top of the cake.

To make individual shortcakes, pat the dough a little thinner than for shortcake. Cut with a cookie cutter. Place one on top of another with melted butter between them. They will come apart very easily.

Shortcake dough is the same as biscuit dough with more shortening added.

LESSON 33

REVIEW

LESSON 34

REVIEW

NOTES

1. Cooking is subjecting foods to a requre temperature to get a desire result.

2. Food is anything which nourishes the body, that is builds up tissues or yields energy or both.

Pancakes

	small receipe.
1½ c. flour	¾ c. flour
2 tbsp. sugar	1 tbsp. sugar
3 tsp. Baking powder	1½ tsp. baking P.
1 c. milk	½ c.
½ tsp. salt	¼ tsp.
1 egg	
1 tbsp. shortening	½ tbsp. short.

Mix & sift dry materials. Beat egg, add milk & pour slowly into other mixture.

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Lessons

IN

Domestic Science

Eighth Grade Course

EIGHTH GRADE COURSE

LESSON 1

WHY FOODS SPOIL

There are always present in the air, *germs*, which, when given *warmth*, *moisture*, *air* and *proper food*, develop into minute plants. These plants are unable to take their food from the soil but require the same kind of organic foods that men do. They are constantly on the alert to consume for themselves the food which the housewife prepared for her table and in so doing, change the whole character of the food and spoil it for human use.

There are three classes of these plants: *molds*, *yeasts* and *bacteria*.

Molds are visible to the eye in bluish, fuzzy masses and grow on any food kept in dark, damp places.

Yeasts cause fermentation in foods containing water and small amounts of sugar (example, canned fruits).

Bacteria causes decay in foods containing protein (example, canned vegetables).

Yeasts and bacteria are too small to be seen by the naked eye and can only be detected by their action and by the aid of the microscope.

Food is preserved either by killing these plants and their spores or creating conditions unfavorable to their growth. The first is accomplished by processes of canning and the second by drying, curing and refrigeration.

Molds and yeast are quickly killed by heat, but bacteria and their spores are killed only by long cooking.

Problem: *Is it more economical to can fruits and make jellies when fruits are in season than to buy commercial products?*

CANNING

Food that is cooked a sufficient length of time to kill all bacteria, yeast and mold and their spores and immediately

sealed in a container, so that no air can contaminate it, is proof against spoiling. This process is known as *canning. Success in canning, therefore, depends upon complete sterilization of food and containers and flawless sealing.*

TO STERILIZE JARS AND RUBBERS

Fruit jars should be carefully examined and found without defects. It is far better to use new rubbers than to run the risk of old ones. Jars, tops and rubbers should be thoroughly washed and sterilized. To sterilize them, fill the jars with cold water, place them with the covers on a trivet in a pan of cold water, the water completely covering them. Bring to a boil gradually and continue to boil for 10 or 15 minutes. Empty out the water and fill with fruit while hot. Dip the rubbers in boiling water before sealing.

UTENSILS USED FOR CANNING

In preserving, canning and jelly-making, iron or tin utensils should never be used. The fruit acids attack these metals and so give a bad color and metallic taste to the product and often harmful compounds are formed. *Use porcelain, enameled or earthen dishes and silver plated, wooden or enameled cutlery.*

SELECTION OF FRUIT

One of the first steps in obtaining successful results is the selection of the fruit.

While fruit usually develops its best flavor when it is ripe, it is best for canning or jelly-making just before it is perfectly ripe. In all soft fruits, the fermentation period follows closely upon the perfectly ripe stage. It is therefore better to choose under-ripe rather than over-ripe fruit. This is especially true for jelly-making, as the *pectin*, so essential to jellying, begins to lose its jelly-making quality.

All fruits should be freshly picked. No imperfect or gnarly fruit should be preserved or canned. Gnarly fruit can be used for jelly and marmalade by cutting out defective parts. When fruit is brought to the home it should be kept

cool and crisp till ready for use. Only such quantity of fruit should be prepared at one time as can be cooked while it still retains its color and crispness.

All large, hard fruit should be washed before paring. Quinces should be rubbed with a coarse towel before they are washed.

If berries should be washed, do so before stemming or hulling. Do this quickly so as not to permit the fruit to soak,

Plums, peaches and tomatoes can be skinned very readily by immersing them in boiling water for a minute or so and then peeling.

SELECTION OF VEGETABLES

Vegetables should be canned when they are at their prime in the local gardens and should be as freshly picked as possible. In preparing for canning, they should be thoroughly cleaned, pared and trimmed as needed and graded in size.

METHODS OF CANNING

There are two general methods of canning: *the open kettle or hot pack method and the cold pack method.*

HOT PACK METHOD

The food material is cooked thoroughly and is packed, boiling hot into hot sterilized jars and then sealed. Fruit canned by this method will keep, but vegetables, other than tomatoes, will not.

PRACTICAL WORK—CANNED TOMATOES

Pour boiling water over tomatoes. Remove the skin and hard green stems, put in a granite kettle and boil twenty minutes, skimming often during the cooking. Fill sterilized jars. Dark jars are better for tomatoes than clear ones.

QUESTIONS ON LESSON 1

1. When is fruit right for canning?
2. Why should decayed or defective parts of fruit be removed before canning.?
3. Upon what two things does success in canning depend?
4. Why do tomatoes and fruit require a shorter period of sterilization than vegetables like peas, beans and asparagus?
5. How are fruit jars sterilized? Why is it necessary?

FRUIT AND VEGETABLE CANNING CHART

BASED ON HOME CANNING WORK CONDUCTED BY THE AGRICULTURE DEPARTMENT OF THE FEDERAL GOVERNMENT

PRODUCTS TO BE CANNED	PREPARATIONS	BOILING WATER OR SYRUP	PROCESSING OR COOKING PERIOD
SOFT FRUITS: Strawberries Dewberries Blackberries Blueberries	Grade, rinse, stem, pack whole.	3 cups sugar to 3 cups water. boil for 4 min. or until 104 degrees C. or 219 degrees F. is registered.	Hot water bath, strawberries 8 min. other fruits 16 min.
Peaches Apricots Sweet Cherries	Grade, rinse, seed, skin or pit. Pack cherries whole peaches and apricots pack in half.		
SOUR BERRY FRUIT: Currants Gooseberries Cranberries Sour Cherries	Stem, pit, blanch in hot water 1 min. Dip quick-ly into cold water Pack whole closely.		Hot water bath 16 minutes.
HARD FRUITS: Apples Pears Quinces	Grade, blanch 1½ min. in hot water dip quickly into cold water. Skin, core, pack whole, quartered or sliced.		Hot water bath 20 minutes.
VEGETABLE GREENS: Asparagus Spinach Cauliflower Brussels Sprouts Beet Tops Swiss Chard Kale French Endive Dandelion	Blanch in steam from 15 to 20 min. Dip into cold water. Cut in convenient sizes. Pack tight, season to taste.	Fill jar with boiling water Add ½ tsp. salt to 1 pt. jar or 1 tsp. to 1 qt. jar.	Hot water bath 90 min., except cauli-flower, 120 minutes.
TOMATOES:	Scald long enough to loosen skins. Dip quickly into cold water, core and skin. Pack whole.	Add 1 tsp. salt to 1 qt. jar or ½ tsp. salt to 1 pt. jar..	Hot water bath 22 min.

FRUIT AND VEGETABLE CANNING CHART
(*Continued*)

PRODUCTS TO BE CANNED	PREPARATIONS	BOILING WATER OR SYRUP	PROCESSING OR COOKING PERIOD
CORN:	Blanch on cob from 3 to 5 min. Dip quickly into cold water. Cut from cob with sharp knife; pack loosely.	Fill jar with boiling water. Add 1 tsp. salt to 1 qt. jar or ½ tsp. salt to 1 pt. jar.	Hot water 3 hours.
LEGUMES: Peas Lima Beans String Beans Lentils	Cull, string, grade, blanch from 2 to 5 min. in boiling water. Pack whole	Fill jar with boiling water Add 1 tsp. salt to 1 qt. jar or ½ tsp. salt to 1 pt. jar.	Hot water bath 3 hours.
ROOTS: Beets Carrots	Cleanse thoroughly. Scald till skins are loose. Dip quickly into cold water. Remove skins. Pack whole or in cubes.	Fill jar with boiling water Add 1 tsp. salt to 1 qt. jar or ½ tsp. salt to 1 pt. jar.	Hot water bath 90 minutes.

"A syrup made of 3 cups of sugar to 2 cups of water and boiled for 4 min, or until it reaches the temperature of 104 degrees C. or 219 degrees F. can be used in the canning of all fruits. The sugar should be well dissolved before placing on the fire, and the time counted when it begins to boil thruout.

"Variations may be made to meet the individual tastes and the different kinds of fruits. If a thinner and lighter syrup is desired, do not boil sugar and water more than 2 or 3 min. If a thicker, heavier syrup is desired, boil the sugar and water not more than 5 minutes."

LESSON 2

JELLY

The juice of fruits that contain *pectin*, a substance similar to gelatin, can be made into jelly. Pectin dissolves in boiling water and stiffens upon cooling. It is most abundant in the harder parts of fruits, the core and the skin. Apples, quinces, crab-apples, currants and grapes make the best jellies.

Jelly must be covered to protect it from mold. Paraffin is convenient for this purpose.

RULE FOR JELLY

If the fruit is juicy, mash and boil until tender. For those fruits that have not enough juice of their own, add water to partly cover. Bring to a boil and strain through a jelly bag made of flannel, if possible without squeezing it. To this juice add an equal quantity of sugar and boil about five minutes, or until it jellies. Test it by putting a spoonful in a saucer and letting it cool. If it thickens slightly and a film forms on top, it is done; if not, boil a few minutes longer. Remove from the fire and pour into sterilized jelly glasses. When cold, cover with melted paraffin.

Jellies, jams, preserves and marmalades are made by combining fruits with from ¾ to an equal bulk of sugar.

When fruit is preserved with a large amount of sugar (pound for pound), it does not necessarily have to be sealed to protect it from bacteria, because the thick syrup formed is not favorable to their growth. However, if left entirely open, molds are apt to develop on the surface.

PRACTICAL WORK—GRAPE OR APPLE JELLY

Jelly: Select a fruit that is rich in pectin—apples, plums, grapes or currants. Wash fruit, add sufficient water and boil gently for ½ to ¾ hour. It requires long boiling to liberate the pectin, the jelly-making substances in the fruit. Drain juice. Boil the juice until it is reduced to about ¾ and add it to the corn syrup which has been boiled from 2 to

3 minutes. Continue boiling until the jelly test (sheeting from the spoon) is secured. Should take only about 5 to 8 minutes.

SUPPLEMENTARY INFORMATION

Cooking of juice before adding sugar:

The length of time juice should be boiled varies, but is usually from 8 to 10 minutes for currants and partially ripe grapes and from 20 to 30 for apples, crabapples, raspberries and quinces.

In either case, it is better to add sugar after the boiling is partially completed. The sugar should be heated in the oven before adding to hot juice.

Use of Left-over pulp from jelly bag:

The fruit pulp left in the bag may be utilized in making marmalade or more jelly. Return the pulp to the saucepan. add water to cover, mix and heat slowly to boiling point. Strain and prepare jelly from juice. Because of the added water, this juice will require longer boiling than the juice from the first extraction.

Jelly troubles:

Too much sugar gives too *soft* jelly; too little sugar gives a *tough* jelly; over cooking gives a *gummy* jelly.

QUESTIONS ON LESSON 2

1. What substance causes fruit juices to jelly?
2. What fruits contain this substance?
3. When is fruit right for jelly-making?
4. What is jelly?
5. Why must canned fruit be sealed when it is not necessary with jelly?
6. Make out a score card for judging jelly.

COLD PACK METHOD

The Cold Pack process is divided into five steps:

1. *Blanching:* The food is blanched, i. e., cooked for a certain period of time in boiling water.

2. *Cold Dipping:* It is then cold dipped, i.e., plunged into cold water and drained.

3. *Packing:* The vegetables or fruits are then packed in clean hot jars. Hot water (1 tsp. salt to each qt. jar, ½ tsp. to each pt. jar) for vegetables and syrup for fruits is usually added to fill jar, the rubbers and tops adjusted so as partially to seal.

4. *Cooking:* The cans are placed on a rack in boiling water which completely covers them 2 or 3 inches. They are boiled for the required length of time. (Consult a canning time table).

5. *Sealing*: When cooked the required length of time, the jars are lifted out of the water, the lid immediately tightened to seal completely and stood upside down to cool. In this way, leakage can be detected.

CANNING WITHOUT SUGAR

Fruits and fruit juices can be completely and successfully sterilized without sugar by cooking in a hot water bath for thirty minutes. These can be sweetened at the time of using, or if plenty of sugar is available, may be made into jelly or jam.

CANNING WITH CORN SYRUP OR SUGAR

CANNED PLUMS

Wash and puncture plums. Pack in sterilized jars. Make syrup by boiling together for 2 or 3 minutes, 1 cup corn syrup and 2 cups of water. Pour syrup over fruit until it fills the can. Seal partially and place in hot water bath. If sugar is used, make a syrup of 1 cup sugar to 4 cups of water.

QUESTIONS ON LESSON 2

1. What is canning?
2. Why are vegetables hard to preserve?
3. How should jars be made ready for cold pack canning?
4. Name and describe the five steps in canning by cold pack method.
5. How are the covers to jars adjusted for cooking? Why not immediately seal?
6. How much water should be put in the container?
7. What is the first thing to do when vegetables or fruit has cooked the required length of time?
8. If at the end of the cooking period, the jar should not be quite full, should the cover be removed and the jar filled up or not? Explain your answer.

Problem: *To conserve health and build up strong men and women.*

LESSON 3

Protein foods build and repair tissues. The following foods are rich in protein:

Meat, Fish	Milk.	Nuts.
Game.	Cheese.	Dried Peas.
Poultry.	Eggs.	Dried Beans.

Fats supply heat and energy. The following is a list of foods rich in fats:

Butter.	Cottonseed Oil.	Peanut Oil.	Salt Pork.
Cream.	Corn Oil.	Margarine.	Bacon.
Lard.	Olive Oil.	Nuts.	Ham.

Carbohydrates supply heat and energy, and form fat. The following is a list of foods containing carbohydrates in the form of sugar:

Candy.	Figs.	Jams.	Raisins.
Dates.	Honey.	Molasses.	Sugar—cane,
Dried Fruits.	Jellies.	Prunes.	beet & maple.

The following is a list of foods containing carbohydrates in the form of starch:

Barley.	Cornstarch.	Rice.	Wheat.
Cereal Foods.	Crackers.	Rye.	Bread.
Corn Meal.	Oats.	Tapioca.	Corn.
			Potatoes.

Mineral is supplied principally from fruits and vegetables:

Fruits

Apples.	Melons.
Bananas.	Oranges.
Berries.	Pears.
Lemons.	

Vegetables

Cabbage.	Onions.
Celery	Salads.
Green Peas.	Squash.
Greens.	String Beans.
	Tomatoes.

NOTES ON PLANNING MEALS

The muscles, bones and all other parts of the body are made and kept in repair by food which also supplies heat to the body and gives it the power to do work. It is important then that these facts be taken into consideration when planning a meal.

The following suggestions are helpful in planning meals:

1. A well-balanced meal contains the proper amount of all of the food principles. It follows that a well chosen diet should contain those food principles that supply heat, energy, regulation and aid in the growth and repair of the body and that foods should be selected with this in mind.

2. It is more economical to plan several meals at one time. Why?

3. Plan to utilize left-overs.

4. It is not necessary to serve meat more than once a day. Cheaper cuts of meat are just as nourishing as the more expensive tender ones, but require longer cooking.

5. Fruits and vegetables are best and cheapest when in season.

6. Milk is a most valuable food and should be used in larger quantities. All sour milk should be used.

7. Use eggs when they are plentiful and cheap.

8. A whole meal in one dish will economize time and fuel as well as food.

QUESTIONS ON LESSON 3

1. Give three ways of saving food.
2. When should we buy fresh vegetables and fruits and why?
3. How often should we serve meat?
4. Give five substitutes for meat.
5. Give five uses for sour milk.
6. Name five dishes which can be used as a whole meal.
7. Name the food principles.
8. Give examples of each food principle.
9. Name five protein foods.
10. Name five foods containing starch or sugar.
11. Name five foods containing minerals.
12. Name three foods containing fats.
13. Plan the three meals for one day.
14. What are the most important things to be considered in planning a meal?
15. What is the Department of Agriculture?
    (*a*) What is its work?
    (*b*) Where do they get their funds to do their work?

Problem: *What can I learn to cook for breakfast that will give me a good start for the day?*

LESSON 4

FRUITS

Review seventh grade notes, page 12-13.

Practical Work—Prepare: Grape Fruit, Oranges, Baked Apple, Apple Sauce, and Stewed Fruit, using dried fruits.
For recipes, see seventh grade course, page 12.

QUESTIONS ON LESSON 4

1. Why are fruits important to the body?
2. What do fruits contain that make their juices jelly?
3. Why should fruits form an important article in the diet?
4. Classify fruits according to food principles.
5. What fruits are served for breakfast?

LESSON 5

CEREALS

Review seventh grade notes, page 19.

Practical work—Prepare each kind: Granular . . Corn.
Flakes . . . . Oats.
Dry . . . . . Rice.

For recipes, see seventh grade course, page 20.

QUESTIONS ON LESSON 5

1. What are cereals?
2. To what class of foods do cereals belong?
3. What food principles do cereals contain?
4. What two reasons make them important food for the human race?
5. Name five important cereals beside wheat.

6. What is the proper method of cooking cereals? Why?

7. Give an example of each of the three forms in which cereals can be purchased?

8. Give the cost of cereals in bulk as compared with their cost in package.

9. From what countries do we obtain most of the rice used in the U. S.?

10. What states of our country produce large quantities of corn?

Problem: *What is to be done with left-over cereals?*

LESSON 6

LEFT-OVER CEREALS

Cereals may be served either hot or cold; never throw cold cereal away as it may be used in a number of ways.

It may be: Added to fresh cooked cereals.
Molded with fruit.
Used in making pancakes, muffins and puddings.
Fried until brown.
Made into polenta.
Added to soup.
Mixed with croquettes.

Practical Work—Prepare: Italian Polenta.

For recipe, see seventh grade course, page 31.

Fried Cereal.

QUESTION ON LESSON 6

Name five ways that left-over cereal can be used.

LESSON 7

BATTERS AND DOUGHS

Review seventh grade course, page 48.

GRIDDLE CAKES

The griddle for cakes should be smooth and clean. Never allow fat to collect and burn around the edges. Grease griddle with a pork rind or drippings. If fat is used in the cakes, no grease is needed on the griddle. Drop cakes from the end of the spoon, to make them round. When full of bubbles, turn and brown the other side. Never turn a cake but once.

For wheat substitutes and measurements equal to one cup of flour, see seventh grade notes, page 49.

POTATO GRIDDLE CAKES

6 good-sized potatoes, grated.
1 egg.
2 tbsp. flour.
⅓ c. liquid or the potato water.
1 tsp. salt.
Mix and cook as any cakes.

CORN MEAL GRIDDLE CAKES

1½ c. corn meal or corn flour.
½ c. white flour.
½ tsp. salt.
1 tbsp. melted fat.
3 tsp. baking powder.
1 tbsp. sugar or molasses.
2 c. (scant) milk, water or ½ milk and ½ water.

Mix in order given and bake on hot griddle without greasing.

NOTE: 2 c. sour or buttermilk with 1 tsp. soda may be substituted for the sweet milk and baking powder.

BREAD GRIDDLE CAKES

1 pt. stale bread.
2 tbsp. shortening.
1 pt. milk and water (scalded).

Pour the hot liquid over crumbs and shortening, and soak until soft. Add 1 cup corn flour, ½ tsp. salt, 2 tsp. baking powder, cold milk to thin if necessary. Bake on hot griddle.

SWEET MILK GRIDDLE CAKES

2 c. white flour.
1 c. substitute flour.
¼ c. sugar or corn syrup.
1½ tbsp. baking powder.
2 c. milk.
1 tsp. salt.
1 egg.
2 tbsp. shortening.

Mix and sift dry ingredients. Beat egg, add milk, and pour slowly into the other mixture. Beat thoroughly and add shortening.

LESSON 8

MUFFINS

For recipe, see seventh grade course, page 52.

CORN BREAD

1 c. cornmeal.
1 c. flour.
½ tsp. salt.
4 tsp. baking powder.
¼ c. sugar.
1 c. milk.
2 eggs.
2 tbsp. melted fat.

Mix in order given and bake in greased shallow pans.

LESSON 9

HOT BREADS

Never eat bread steaming hot because the inside part or crumb forms in the mouth a pastry mass which is hard to digest.

Quick breads are those made without yeast. They are either *batters* or *doughs*.

BISCUITS

For recipe, see seventh grade course, page 52.

Never handle biscuits more than absolutely necessary as it makes them tough.

QUESTIONS ON HOT BREADS

1. What is meant by "*quick breads*"?
2. What is a batter, a dough, a sponge?
3. Give proportions for a thin batter, a thick batter.
4. Give proportions for a dough.
5. Of what is baking powder made?
6. Give the proportions of soda and cream tartar for baking powder.
7. What is an alkali? What is soda?
8. From what is soda made?
9. What is an acid? What is cream of tartar?
10. From what is cream of tartar made?
11. How does baking powder raise mixtures?
12. Give four methods of raising mixtures.
13. Give method of making baking powder biscuits.
14. With what should a griddle be greased? When need it not be greased?
15. How should cakes be dropped from the spoon?
16. When are the cakes ready to turn? How many times should they be turned?
17. Give the proportion of baking powder to flour.
18. Give the proportion of soda to sour milk.
19. With what should the muffin pans be greased and why?

LESSON 10

BEVERAGES

The primary service of beverages or drinks is to quench thirst. Thirst being the body's demand for water, *water is the best of beverages*, other drinks satisfying thirst simply by means of the water they contain.

Tea consists of the dried leaves of an evergreen shrub, a native of China, though it is cultivated in other countries. Only the young leaves and buds are picked for the market, the youngest making the finest tea.

Freshly picked leaves, rolled and dried quickly by artificial heat, keep their natural color and are sold as green tea. Black tea is produced from leaves left in heaps upon the ground to darken and develop a different flavor before being rolled. Green and black tea comes from one kind of shrub.

TEA

Scant ½ tsp. tea. 1 c. boiling water.

Scald tea pot, put in the tea, and pour over it the freshly boiling water. Steep for 5 minutes but do not boil.

COFFEE

Coffee is the *seed* or *berry* of a cherry-like fruit of a tropical evergreen, each fruit containing two berries. When the fruit begins to shrivel, it is shaken to the ground and dried until the seeds can easily be separated from the pulp. To do this, the seeds are run between wooden rollers, after which they are roasted in a revolving cylinder. Great care must be taken to have the degree of heat that will best develop the flavor and aroma.

A general rule for coffee is to allow 2 tbsp. of coffee for each person and 2 extra tbsp, for the coffee pot, with 1 c. boiling water for each 2 tbsp. of coffee. In making coffee in large quantities, it is not necessary to allow the extra coffee.

Coffee and tea can be considered only as stimulants because they contain a substance harmful to the body.

CHOCOLATE

Cocoa and chocolate are foods. *Chocolate contains fat.* All preparations of cocoa or chocolate and cocoa shells are the products of the seeds of the cacao tree. These seeds, called cocoa beans, which are about the size of almonds, lie surrounded by a fibrous pulp, in a brownish yellow pod about a foot long, growing from the trunk and large limbs of the tree instead of the branches.

The seeds are separated from the pods, allowed to ferment on the ground and then roasted. The thin shell is removed, the kernel cracked and broken into small pieces. These cocoa nibs are then ground, forming a smooth paste, which is poured into moulds for bitter chocolate and sweetened and moulded for sweet chocolate; for cocoa, the *fat is extracted* under pressure and the remainder powdered.

CHOCOLATE

2 squares of Baker's chocolate. 1 pt. water.
3 tbsp. sugar. 1 pt. milk.

Put chocolate with water into sauce pan. Heat until the chocolate melts. Add sugar and boil 10 minutes. Add milk, bring to a boil and beat 2 minutes with a Dover egg beater.

QUESTIONS ON LESSON 10

1. What is the primary use of beverages?
2. Discuss the use of tea and coffee as a beverage.
3. Give the general rule for coffee.
4. What is the difference between cocoa and coffee. Cocoa and chocolate?

LESSON 11

PLAN A BREAKFAST

1. Character of breakfast dishes.
2. Adaptation of dishes already made and other suitable breakfast dishes.
3. Cost.

Problem: *What dishes can I prepare for luncheon or supper that will give much nourishment for little money?*

LESSON 12

SOUP

Soup is one of the most nutritious and economical of foods and its use should be more general. Much good food that is thrown away might be used in making soup. *There are two classes of soup, those with and those without stock.* Stock soups have *meat* as a basis; those without stock are made with *milk* as a foundation.

GENERAL PROPORTION FOR CREAM SOUPS

1 qt. milk.
1 to 2 c. vegetable pulp.
2 tbsp. butter.
1 to 4 tbsp. flour.
1 tsp. salt.
pepper to taste.

For notes and recipes, see seventh grade course, page 23.

QUESTIONS ON LESSON 12

1. What is a cream soup?
2. Why should cream soups be thickened?
3. What is this process called?
4. What determines the amount of flour used in binding?
5. At what meal should cream soups be served?

LESSON 13

SALADS

Salads are made from *cold meat, fish, eggs, fruits or vegetables*, combined with a dressing, which is made with butter, oil or cream, eggs and an acid. Several vegetables or fruits may be combined; meat with vegetables or eggs, etc.

The meat of fish salad may replace the meat in a meal; while fruit salads can take the place of desserts. A salad may be the principal dish at luncheon but follows the main course at dinner.

Odds and ends of left-overs can often be combined into a palatable salad. Salad dressing contain *nourishing materials* in the form of *eggs, cream, oil or butter.* Salads have great food value since they contain nourishing foods, which supply starch, protein, fat and mineral matter. Fruit and vegetable salads are especially rich in minerals. Salads should be used more to take the place of other dishes, since they offer great variety in combinations and in the diet. They make excellent summer dishes.

Lettuce can be freshened by soaking in cold or ice water a short time and can be kept fresh by wrapping in a cloth and laying it on the ice.

There are three classes of salad dressings: (1) *Cooked*—made with eggs, vinegar and seasoning. (2) *Mayonnaise*—made with egg, oil, vinegar and seasoning. (3) *French*—made with oil, vinegar or fruit juice and seasoning.

Salads must be *attractive* to the eye and well seasoned. Such vegetables as celery, radishes, etc., as well as the lettuce on which the salad is served must all be fresh.

Salads should be mixed with a fork and served very cold.

VEAL SALAD

1 lb. cold cooked veal.
nut meats.
1 stalk celery or 1 cucumber.

Dice meat, add celery or cucumbers cut in dice, then nut meats, moisten with dressing and serve on shredded lettuce.

SALAD DRESSING

4 tbsp. flour.
3 tbsp. sugar.
1 tbsp. salt.
1 tsp. mustard.
Dash of Cayenne pepper.
2 eggs.
⅔ c. vinegar.
⅓ c. water.
3 tbsp. olive oil or 1½ tbsp. butter.

Mix dry ingredients, add beaten eggs, vinegar and water. Cook over hot water until thick. Add butter, or if oil is used, add very slowly when cool.

POTATO SALAD

Cut cold boiled potatoes in cubes, sprinkle lightly with salt. If liked, add one-half the amount of celery cut in cubes. Add 1 tbsp. minced onion to every pint of potatoes. Moisten with salad dressing. Mix lightly and serve on lettuce leaves. Garnish with celery leaves.

Hard boiled eggs cut in slices may be added.

VEGETABLE OR MACEDOINE SALAD

Cold cooked peas, carrots, beets, string beans, potatoes or almost any cold vegetable may be combined in this salad. Cut beets and carrots in one-fourth inch cubes, string beans and celery in short lengths.

Mix each vegetable separately with French or cooked dressing and arrange them in sections, forming a circular mound upon a bed of lettuce. Let vegetables of contrasting colors come next each other and garnish with radishes, celery tips and small lettuce leaves.

FRENCH DRESSING

3 tbsp. olive oil.
1 tbsp. vinegar or lemon juice.
½ tsp. salt.
Cayenne.

Stir seasoning into the oil, add vinegar and stir hard until the dressing thickens slightly.

LESSON 14

FRUIT SALAD

Mix diced oranges, bananas and pineapples, add broken nut meats. Moisten with salad dressing and serve on lettuce. Garnish with maraschino cherries.

WALDORF SALAD

Mix equal parts of diced apples and celery. Add broken nut meats, moisten with salad dressing. Serve cold on lettuce.

QUESTIONS ON LESSON 14

1. What three classes of foods are used in making salads?
2. Why are salads important in the diet?
3. What are the three classes of salad dressings?
4. Give the place of different salad in menus.
5. Suggest other kinds of salads.

Problem: *How to make attractive made dishes for luncheon.*

LESSON 15

Made dishes form the main dish for luncheon or supper.

WELSH RAREBIT

¼ lb. cheese.
¼ c. milk.
1 egg.
¼ tsp. mustard.
spk. Cayenne.
½ tsp. salt.
2 tsp. butter.
4 slices toast.

Melt the cheese over hot water, add milk and eggs, mixed with seasoning. Cook over hot water until like boiled custard, stirring constantly. Add butter, and when melted, pour over toast or crackers and serve at once. If the cheese is rich the butter may be omitted.

FRENCH RAREBIT

8 slices bread, buttered.
½ lb. cheese.
2 c. milk.
1 or 2 eggs.
½ tsp. mustard.
½ tsp. salt.
spk. Cayenne.

Put bread and cheese in layer in a buttered baking dish and pour over it the milk, to which has been added the beaten egg and seasoning. Bake in a slow oven until brown and the milk is absorbed.

PLAIN OMELET

3 eggs.
¼ tsp. salt.
spk. pepper.
3 tbsp. milk or hot water.

Beat eggs till well mixed, add salt, pepper and liquid. Put 1 tsp. butter or nice drippings in a smooth frying pan, shake it over the fire until melted, then turn in the mixture. Shake occasionally to see that the omelet does not stick. Fold and serve at once.

BEATEN OMELET

3 eggs beaten separately.
3 tbsp. milk.
⅛ tsp. salt.
pepper.

Beat the yolks till very light. Add milk and seasoning, then beaten whites. Heat 1 tsp. butter in a frying pan, pour in the omelet and spread evenly. Cook slowly till brown on the bottom. Set in the oven to dry on top, fold and serve at once.

CREAMED DRIED BEEF

½ lb. dried beef.
2 tbsp. butter.
1 pt. milk.
4 tbsp. flour.
¼ c. cold water.
pepper.

Saute the dried beef in hot butter until it curls up. Pour the milk over it. Mix flour and water until smooth. Add to the milk and beef and cook until it thickens. Serve on toast. If beef is very salty, soak in cold water and drain before frying.

SPANISH RICE

2 tbsp. fat. 1 c. uncooked rice.
Fry rice until brown. Add 2 c. water, 1 small onion (chopped fine) salt and pepper and 2 c. tomatoes. Cook slowly for 30 minutes. Chopped peppers are an agreeable addition.

LESSON 16

REVIEW QUESTIONS TO DATE

LESSON 17

EXAMINATION

LESSON 18

ACADEMIC TESTS

Problem: *How may attractive dishes be made from left-over meats and vegetables?*

LESSON 19

LEFT-OVER MEATS AND VEGETABLES

Never throw away any food that can possibly be eaten. Left-over meats and vegetables may be used in a variety of ways. By this means, no food is wasted.

Left-over roast may be *served cold*, cut in slices. Other meats can be ground or chopped, mixed with white sauce or brown gravy and then treated in a number of ways. The moistened meat can be shaped into cylinders or cakes, dipped

in egg or crumbs and fried in deep fat; these are called *croquettes*. The chopped meat may be mixed with cut up cold potatoes and fried, making *hash*. Hash may also be baked. Meats and vegetables can be made into *salads*. Many left-overs can be made palatable by the addition of white or other sauces.

COTTAGE PIE

Cover the bottom of a greased baking dish with mashed potatoes. Add a thick layer of cold roast beef, chopped or cut into small pieces, seasoned with salt and pepper and onion juice, and moisten with some of the gravy. Cover with another layer of mashed potatoes. Bake until dish is heated through and potatoes browned on top

MINCED MEAT ON TOAST

Chop or grind cold meat, heat with some of the gravy, season with celery salt or onion juice. Serve on toast, or thin slices of hot corn bread.

ESCALLOPED MEAT

Into a baking dish put alternate layers of macaroni or rice and chopped or ground meat. Pour tomato sauce or gravy over each layer. Cover with buttered crumbs and bake until dish is heated through and crumbs brown.

CASSEROLE OF RICE AND MEAT

Line a buttered mold with cooked rice, fill center with chopped cold meat, highly seasoned with salt, pepper, cayenne, celery salt, onion juice, and lemon juice, and moisten with stock or gravy. Cover meat with rice and then cover whole dish and steam from 30 to 45 minutes. Serve on a platter surrounded with sauce.

BROWNED HASH

Mix together equal parts of chopped meat and chopped cold boiled potatoes. Moisten slightly with gravy or stock. Season and place in heated frying pan containing a little fat. Press compactly into one-half of the pan. Heat slowly until brown. Turn on a platter and serve with sauce.

FOOD IS WASTED IN FIVE PRINCIPAL WAYS

1. *When we eat more food than our bodies need* for actual growth and repair and to supply energy for our work. Over-eating tends to poor health and fat instead of brawn; makes us sluggish and indolent instead of energetic and resourceful. Eat enough and no more. Eat for physical and mental efficiency.

2. *When food is burned or spoiled in cooking.* Improperly prepared or poorly seasoned food will be left on the table and probably wasted. Buy food wisely and then prepare it carefully.

3. *When too much food is prepared for a meal* unserved portions are apt to be thrown into the garbage pail or allowed to spoil. Many housekeepers do not know how to use left-over foods to make appetizing dishes.

4. *When too much food is served at a meal,* uneaten portions are left on the plate and later thrown into the garbage pail. Learn to know the needs of your family and serve each no more than you think he will want.

5. *When food is handled carelessly.* Buy clean food, keep it clean until used. Be neat in all details of cooking and serving. This lessens waste and is a valuable health measure as well.

By U. S. Department of Agriculture.

QUESTIONS ON LESSON 19

1. Why should left-over foods be used?
2. Name five ways of using left-overs.
3. What is the place of a made dish in a meal?
4. Name five made dishes which can be used for luncheon or supper.
5. Name five ways in which food is wasted in the home.

LESSON 20

SIMPLE DESSERTS

Desserts are placed at the end of the meal because they are sweet and should be simple or elaborate to correspond with the rest of the meal.

RICE PUDDING NO. 1

½ c. rice. ½ c. sugar. ½ tsp. salt. 1 qt. milk.

Wash rice, mix ingredients, pour into a pudding dish. Bake from 2 to 3 hours in a very slow oven at first, then let it brown slightly. Serve hot or cold.

RICE PUDDING NO. 2

2 c. cooked rice.
½ c. raisins.
1 c. milk.
½ c. sugar.
Vanilla or cinnamon.

Mix all together, put into a pudding dish and bake until brown. An egg, thoroughly beaten may be added if desired.

BLANC MANGE

¼ c. cornstarch.
½ c. sugar.
⅛ tsp. salt.
1 pt. milk.
Lemon rind or cinnamon stick.

Mix cornstarch, sugar and salt. Add scalded milk, lemon rind or cinnamon stick. Cook 20 minutes in a double boiler. Remove rind or cinnamon stick and pour into molds, wet with cold water. Cool and serve with cream and sugar or boiled custard.

TAPIOCA CREAM

¼ c. pearl tapioca.
1 pt. milk.
2 eggs.
⅔ c. sugar.
½ tsp. salt.
½ tsp. vanilla.

Soak tapioca in hot water enough to cover, in the top of the double boiler, placed on the back of the stove. When the water is absorbed, add the milk and cook until the tapioca is

transparent and soft. Add sugar and salt to the beaten yolks. Pour the boiling mixture slowly on them, return to the double boiler, and cook 2 minutes or till it thickens slightly. Remove from the fire, add the flavoring and beaten whites. Cool and serve.

DUTCH APPLE CAKE

2 c. flour.
3 tsp. baking powder.
½ tsp. salt.
2 apples.
4 tbsp. butter and lard mixed.
1 c. milk.
1 egg.

Mix dry ingredients, cut in the butter, add milk and beaten egg. Spread on greased shallow pans. Pare, core and cut apples in slices, laying them in rows on top of the dough, pressing in slightly. Sprinkle top with sugar and cinnamon mixed, and bake in a hot oven from 20 to 30 minutes. Serve with sauce.

PEACH COBBLER

1 c. flour.
2 tsp. baking powder.
¼ tsp. salt.
6 or 8 peaches.
2 tsp. butter.
¾ c. milk.

Mix as for baking powder biscuit. Pare and slice peaches and put in the bottom of a baking dish. Add 1 c. sugar and ½ c. water. Cover with batter and bake 30 minutes in a moderate oven. Serve with cream and sugar. Canned or dried peaches or berries may be used.

QUESTIONS ON LESSON 20

1. Where should desserts be placed in a meal and why?
2. Name five simple desserts.

Lemon Sauce or Vanilla.
½ - 2 cups of Hot water
¼ - 1 cup of sugar - 4 tbsp.
½ - 2 tbsp. cornstarch
¼ - 1 " butter
¼ - juice of 1 lemon or 1 tsp. vanilla.
Cream butter, sugar, and cornstarch together. Pour over them the boiling water & cook until thick and flavoring

LESSON 21

LUNCHEON

Discuss: Luncheon with cost.
Table Setting.
Serving.
Review seventh grade notes, page 27-28.

"Hospitality is one of the great joys of home life."

Problem: *What can be served at a party that will conform to conservation ideas?*

LESSON 22

AFTERNOON TEA

Plan an afternoon tea.
For tea, see Lesson 10—eighth grade course, page 82.

SANDWICHES

Bread for sandwiches should be at least a day old and cut in thin slices. Use butter creamed until very soft as it spreads more easily and takes less butter.

Fit slices of bread carefully together. Remove crusts if desired or cut sandwiches into fancy shapes with a cookie cutter. Have plenty of filling but be careful it does not come out on the edges.

Sandwiches for a picnic can be kept moist by wrapping them in waxed paper. For a luncheon, wrap them in a slightly dampened cloth and put them in a cool place.

LETTUCE SANDWICHES

Shred lettuce and put a little on the buttered bread. Dot with salad dressing, cover with lettuce and press on the other slice of bread. Trim edges of lettuce with scissors and cut in half.

Chop cold hard boiled eggs, moisten with salad dressing and spread thinly between slices of buttered bread. One egg makes three sandwiches.

SARDINE SANDWICHES

Drain oil from sardines. Remove skin and bones. Mash, add yolks of hard boiled eggs mashed fine. Season with salt, pepper and a few drops of lemon juice. Spread thinly between slices of buttered bread.

Use one sardine for each sandwich and allow the yolk of one egg for four sardines.

HAM SANDWICHES

Mince cold boiled ham and moisten with salad dressing or melted butter and spread between buttered bread; or put cold boiled ham sliced very thinly between slices of buttered bread. One tbsp. of minced ham makes one sandwich.

RELISH SANDWICHES

Chop olives, pickles and English walnuts very fine and moisten with salad dressing. Spread thinly between slices of buttered bread.

Pimentos may be added.

BROWN BREAD SANDWICHES

Mash neufchatel cheese, add chopped olives and spread thinly between slices of buttered brown bread.

QUESTIONS ON LESSON 22

1. How old should bread be for making sandwiches?
2. How do we keep sandwiches from becoming dry?

LESSON 23

COOKIES

There are two classes of cookies, *rolled* and *dropped*.

In making cookies, care should be taken not to make them too stiff or they will be dry. Handle as little as possible to avoid making them tough. Roll only a part of the dough at a time, cutting the cookies as close together as possible. Place in the pans with an inch space between each cooky to retain the shape. Cookies require a hot oven, and should be removed from the pan while hot to prevent breaking.

DROP GINGER COOKIES

1 c. molasses.
1 c. fat.
1 c. sugar.
2 eggs.
4 c. flour.
1 tsp. ginger.
½ tsp. nutmeg.
1 tsp. soda.
½ c. hot water.

Cream the fat, add sugar, beaten eggs, molasses and water. Add the sifted dry ingredients. Drop from a spoon into pans. Bake in a moderate oven.

OAT COOKIES

3¼ c. ground rolled oats.
1 tsp. soda.
½ tsp. salt.
½ tsp. ginger.
½ c. molasses.
2 tbsp. cold water.
Cornstarch for rolling out.
½ or ⅓ c. fat.

Sift dry ingredients. Cream fat. Add molasses and the water and the dry ingredients. Roll the dough about ⅛ inch thick and cut the cookies. Bake them in a moderate oven. This recipe makes about 60 small cookies.

QUESTIONS ON LESSON 23

1. What makes cookies dry?
2. How should cookie dough be handled? Why?
3. Name the classes of cookies.
4. Give two ways to avoid handling cookie dough.
5. How should cookies be placed in the pans? Why?
6. What should be done with cookies as soon as they are taken from the oven? Why?
7. What kind of an oven do cookies require?

Problem: *What dishes can I learn to prepare for dinner that will be inexpensive and nourishing?*

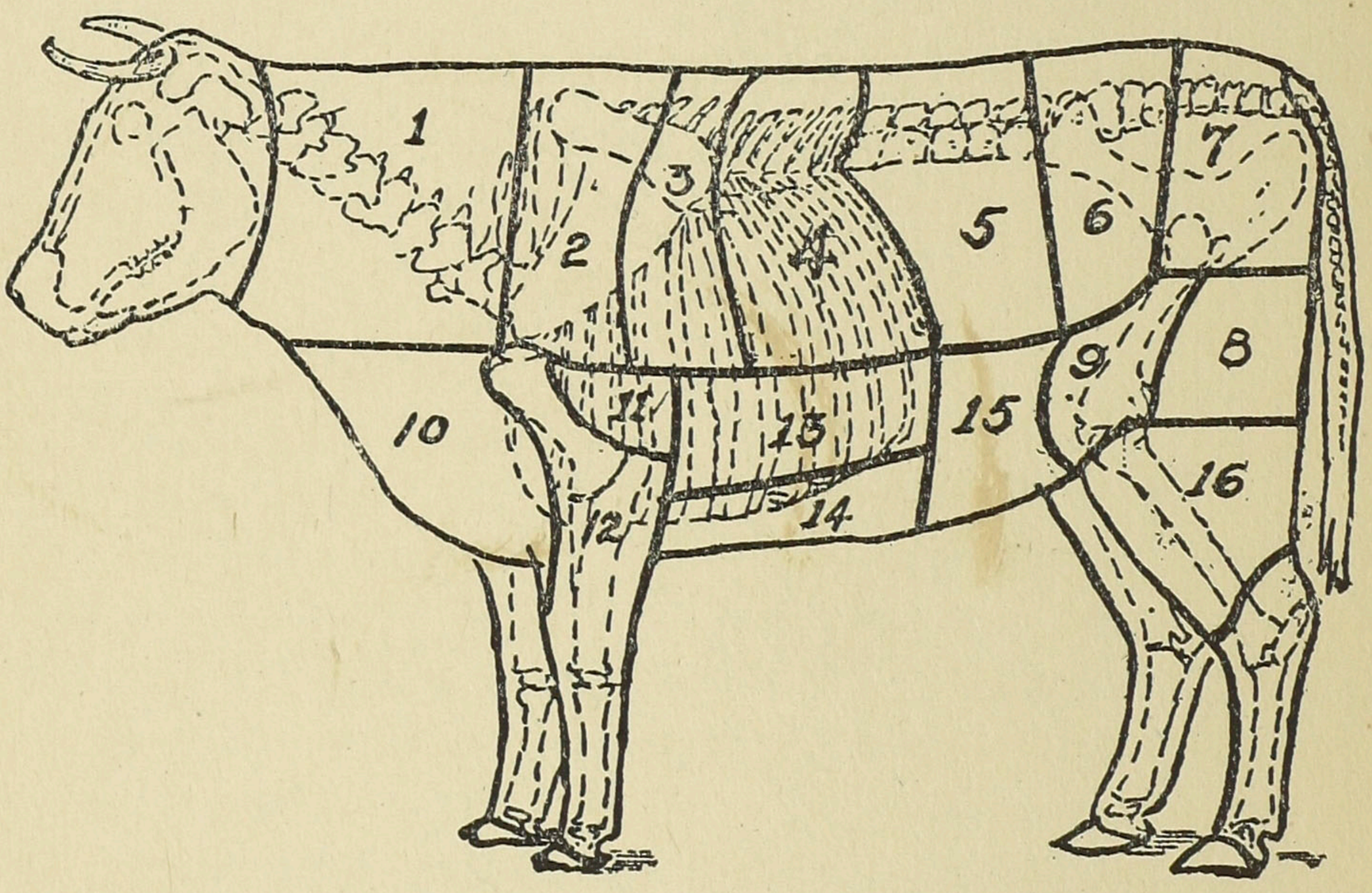
LESSON 24

MEAT SOUPS

Stock is the juices of meat and bone used as a foundation for soup. It is made by pouring *cold water* over *meat cut* into small pieces and *cooking slowly for a long time.* The toughest cuts of meat are used for stock because they contain much nourishment and can be used in no other way.

Tough cuts of meat should be cooked over a *low fire for a long time* to soften the fibres, which makes it more digestible and palatable.

The parts of the animal which are exercised most are tough and used for stock.



1—Neck.
2—Chuck.
3—Blade.
4—Prime ribs.
5 & 6—Loin (6 Sirloin)
7—Rump.
8—Round.
9—Top sirloin.
10—Brisket.
11—Cross-ribs.
12—Shoulder.
13—Plate.
14—Navel.
15—Flank.
16—Leg (shin)

OTHER PARTS OF BEEF USED AS FOOD

Brain, used for croquettes.
Tongue, used for boiling (smoked or fresh).
Heart, to be stuffed and baked.
Liver, to be sauted.
Tripe, (fourth stomach), to be pickled or sauted fresh.
Suet, to be used for puddings and mince meat.
Tail, to be used for soup.

VEGETABLE SOUP

For recipe, see seventh grade course, page 40.

QUESTIONS ON LESSON 24

1. What is stock?
2. How is stock made?
3. What cuts of meat should be used in making stock? Why?
4. Name cuts of meat used for stock.

LESSON 25

FISH

Review notes, Lesson 25, seventh grade course, page 39.
Fish should always be fresh and used in season.
Fish may be *boiled, broiled, baked* and *fried.*
When left over, they may be *creamed, scalloped, made into balls, croquettes or hash.*

TO CLEAN FISH

Remove the scales by drawing the back of the knife over the fish, beginning at the tail and working toward the head. Cut through the underside of the fish and remove the insides. Wash quickly but do not soak. If not to be used at once, sprinkle lightly with salt, wrap in a clean cloth and keep in a cool place.

BAKED FISH

Clean, wipe and dry fish. Do not remove the head and tail. Rub all over with salt, stuff and sew up. Lay the fish in the pan and skewer it into the shape of a letter S. Lay strips of salt pork around the pan and across the back. Sprinkle the fish with salt and pepper and dredge with flour. When the flour begins to brown, baste with the fat in the pan. It is done when the flesh separates easily from the bone. Lift carefully on a hot platter, draw out skewers, and strings and serve with drawn butter or egg sauce.

DRAWN BUTTER

1 pt. hot water or stock.
4 tbsp. butter.
pepper.
4 tbsp. flour.
½ tsp. salt.

Melt butter in frying pan, add flour and gradually the hot water. Cook until thick and perfectly smooth. Add cold hard cooked eggs, chopped fine, if desired.

FISH TURBOT

1 pt. milk.
4 tbsp. flour.
salt and pepper.
4 tbsp. butter.
2 eggs.

Remove bones and skin from fish and flake. Sprinkle with salt and pepper. Make a white sauce with the milk, butter and flour. Season with salt and pepper and if desired a little minced onion. Remove from fire and add beaten eggs. Put a layer of fish in a baking dish, cover with sauce; repeat until the dish is full, cover with buttered crumbs, and bake until brown. A few drops of lemon juice sprinkled over the fish improves the flavor.

QUESTIONS ON LESSON 25

1. Tell how to clean fish.
2. How can you keep fish for a few days?
3. How can you tell when fish is fresh?
4. Name five ways in which fish may be prepared.
5. What food principle in fish?

LESSON 26

MEAT

Review Meat, Lesson 27, Seventh Grade Course, page 41.

Tough cuts of meat are used for *stock, stews* and *pot roasts.* Tender cuts are used for *steaks, chops* and *oven roasts.*

Tender cuts of meat should be *cooked quickly* to develop flavor and keep in the juices.

POT ROAST

Sear the cut sides of the meat in a hot kettle, add 1c. of hot water, season with salt and pepper and keep just below the boiling point. Add water only as necessary to keep from burning. Cover closely and cook slowly until very tender or from two to three hours. Remove meat and make a gravy in the kettle.

GRAVY

Pour off all but 4 tbsp. of fat from the kettle. Add 4 tbsp. of flour and stir until brown. Add slowly 2 c. boiling water. Cook until thick and smooth. Season with salt and pepper.

BEEF HASH

2 c. cooked beef.
2 c. boiled potatoes.
¼ small onion.
minced if liked.
¾ c. water.
2 tbsp. butter or drippings.
Salt and pepper to taste.

Remove bones, gristle and fat from the meat and chop with the potatoes. Put water and onion in the frying pan, add butter or drippings. When melted, add hash, season and let simmer until water is absorbed. Serve hot.

QUESTIONS ON LESSON 26

1. Name the uses for tough cuts of meat.
2. Name the uses for tender cuts of meat.
3. How should tender cuts be cooked? Why?
4. What food principle is found in meat?

Problem: *Since meat is so expensive, what can I use to replace it at times?*

LESSON 27

MEAT EXTENDERS

Noodles, dumplings, bread and vegetables may be combined with a small quantity of meat to make it go farther. These are called meat extenders.

Some foods can *replace meat* in the diet, because they have much the same food value and food principles. These foods are: *eggs, milk, cheese, beans, peas, fish and nuts.*

For recipes, see Lessons 15 and 19, eighth grade course, page 87-89.

QUESTIONS ON LESSON 27

1. What are meat extenders?
2. Name three meat extenders.
3. Name five meat substitutes.
4. Why are meat substitutes so called ?

NOTES

Problem: *Why is it necessary to learn to make good bread?*

LESSON 28

Review Lesson 29, seventh grade course, page 45-46.

VIENNA BREAD

1 pt milk.
1 pt. boiling water.
2 tbsp. sugar.
2 tbsp. lard or butter.
2 tbsp. salt.
1 cake yeast dissolved in 1 c. lukewarm water.
Flour to make a soft dough.

Put the salt, sugar, lard and milk in a bowl and pour over them the boiling water. When lukewarm, add yeast and flour enough to make a dough. Turn on a well floured board and knead 20 minutes. Put into a greased bowl. Grease the top to prevent a hard crust from forming. Cover closely and do not let drafts of cold air strike it. Let rise till it doubles in size, over night in winter, about four hours in summer. Knead lightly to work out bubbles of gas. Shape into loaves or rolls. Let loaves rise in the pan ½ to ¾ hours and bake 40 to 60 minutes or till a rich brown and the loaf emits a hollow sound when tapped on the bottom.

Rolls should rise in the pan from 1 to 1½ hours and bake in a hot oven 20 minutes.

OATMEAL BREAD

For recipe, see seventh grade course of study, page 46.

LESSON 29

Review Lesson 29, seventh grade course, page 45-46.

PARKER HOUSE ROLLS

1 pt. milk.
1 tbsp. butter.
1 tsp. salt.
1 tbsp. sugar.
½ cake yeast dissolved in ½ c. lukewarm water.
Flour.

Scald milk, add butter, sugar and salt. When lukewarm, add yeast and flour to make a soft dough. Knead until the dough blisters. Let rise till it doubles in size. Shape into rolls; let rise 1 to 1½ hours. Bake in a quick oven 20 minutes. Brush with milk or butter.

TO SHAPE ROLLS

Roll dough ¾ inch thick; cut with a cookey cutter. Crease in the center with the handle of a knife dipped in flour. Brush one-half with melted butter. Fold, place in pans about ½ inch apart.

COFFEE CAKE

1 c. scalded milk.
⅓c. butter or butter and lard.
¼ c. sugar.
Flour.
½ tsp. salt.
⅓ cake yeast dissolved in ¼ c. lukewarm water.
1 egg.

Add butter, sugar and salt to milk. When lukewarm, add dissolved yeast cake and egg well beaten. Add flour enough to make a stiff batter; cover and let rise over night; knead lightly in the morning, spread in greased dripping pan, cover and let rise again. Before baking, brush with beaten egg and cover with the following mixture: melt 3 tbsp. butter, add 1-6 c. sugar. Remove from fire when sugar is partially melted, add 1 tsp. cinnamon and 3 tbsp. flour.

USES OF STALE BREAD

Stale bread, if heated in a closely covered pan, becomes almost like fresh bread, and can be used again on the table. Keep pieces of stale bread by themselves in a jar or covered bowl. Slightly stale pieces may be used for toast. Dry broken pieces in a warm oven until they are crisp but not brown. Crush and sift the crumbs and keep in a glass jar closely covered. They will keep for several weeks. They may be used as a substitute for flour. Coarser and browned crumbs may be used for the tops of escalloped dishes. Broken pieces not dried are suitable for bread puddings, stuffing and fillings for escalloped dishes. Bread, dried slowly in the oven until brittle and brown all through, is liked by many people and is excellent for children.

LESSON 30

STEAMING

A mold or tightly covered tin can may be used for batters, while doughs may be placed in the bottom of a steamer. The mold and cover should be thoroughly greased and if it has no cover, a piece of strong brown paper, greased, may be tied over the top. Place the mold in a steamer over boiling water or on a rack in a kettle of boiling water. Keep the water boiling and as it evaporates, fill with more boiling water. Never fill mold more than two-thirds full.

SUET PUDDING

2½ c. flour or substitute.
1 tsp. soda.
½ tsp. salt.
1 tsp. cinnamon.
½ tsp. nutmeg.
½ tsp. cloves.
½ tsp. ginger.
1 c. suet chopped.
1 c. raisins.
1 c. currants.
1 c. milk.
1 c. molasses.

Mix in order given, pour into buttered mold, cover and steam 3 hours.

HARD SAUCE

⅓ c. butter. 1 c. powdered or granulated sugar.
⅔ tsp. lemon extract or vanilla.

Cream butter, add sugar gradually and flavoring. Cool and serve in balls.

FOAMY SAUGE

½ c. butter. 1 egg.
1 c. sugar. ¼ tsp. flavoring.

Cream butter, add sugar gradually and beaten egg. Beat while heating over hot water, being careful not to let the butter melt. This should be just warmed to the consistency of cream but not hot. Flavor and serve.

LEMON SNOW BALLS

3 eggs beaten separately. Grated rind and juice
1 c. sugar. ½ lemon.
2 tbsp. corn starch. 1 tbsp. butter.

Mix sugar and corn starch and pour over them the boiling water. Cook ten minutes, remove from the fire and add the lemon rind, juice and butter. Stir till butter is melted and serve.

APPLE DUMPLINGS

2 c. flour or substitute. 2 tbsp. shortening.
4 tsp. baking powder. 1 scant c. milk.
½ tsp. salt. 3 apples.

Mix as for baking powder biscuits. Roll ¼ inch thick. Put saucer on dough, and cut around with a knife. Place on this dough sliced apples. Sprinkle with sugar, fold the dough over the apple, pinching it down thoroughly. Steam 1 hour and serve with a sauce or cream, or place in a baking dish and pour over them a syrup made with 1 c. sugar, 2 c. boiling water and 1 tbsp. butter. Bake 45 minutes, covering the first half hour.

PUDDING SAUCE

2 tbsp. butter.
4 tbsp. flour.
1½ c. hot water.
1 c. brown sugar.
2 tbsp. lemon juice.

Melt butter, add flour and then hot water gradually. Cook until thick and smooth and add sugar. Stir until sugar is melted, add lemon juice and serve hot.

COTTAGE PUDDING

1 egg.
¾ c. sugar.
3 tbsp. melted butter.
1 c. milk.
2 c. flour or substitute.
4 tsp. baking powder.
½ tsp. salt.

Beat egg, add sugar, melted butter and milk, then flour mixed with salt and baking powder. Beat and bake in a shallow greased pan and serve with lemon sauce.

LEMON SAUCE

2 c. hot water.
1 c. sugar.
2 tbsp. corn starch.
Grated rind and juice 1 lemon.
1 tbsp. butter.

GELATINE

Gelatine is a transparent, jelly-like substance obtained from the tendons and bones of young animals. Most fruits contain a substance similar to this, called *pectin*, which causes the juice to jelly when heated with sugar.

Gelatine is insoluble in cold water, but soluble in boiling water. Never cook gelatine, as this develops a disagreeable flavor and the gelatine will not harden. To harden gelatine desserts quickly, set them in a pan containing a mixture of cracked ice, salt and water.

LEMON JELLY

2 tbsp. gran. gelatine.
½ c. cold water.
Juice of ½ lemon.
1 c. sugar.
2½ c. boiling water.

Soak gelatine in the cold water until soft. Add boiling water. When gelatine is dissolved, add sugar and strained lemon juice. Strain carefully into a wet mold and set aside to stiffen.

FRUIT PUDDING

1 c. cooked fruit.
1 tbsp. lemon juice.
1⅓ c. boiling water.
½ c. sugar.
spk. cinnamon.
⅓ c. cornstarch.

Add sugar, cinnamon and water to fruit. Thicken with cornstarch wet in a little cold water. Cook over fire till thick, then over hot water 20 minutes. Add lemon juice. Serve cold with cream.

QUESTIONS ON LESSON 30

1. How should batters be steamed?
2. How should doughs be steamed?
3. How full should a mold be filled?
4. What is the effect of hot and cold water on gelatine?

Problem: *How can I make good pastry using substitute flours?*

LESSON 31

Pastry should be handled as little, as lightly and as quickly as possible. Winter wheat flour should be used. Butter makes a crisp brown crust; lard a tender, white crust. The shortening and the water should be cold and mixed into the flour with a knife, that the heat of the hands may not soften the shortening. Never use cheap materials for a pie. Pastry should be put into a hot oven and the heat lessened after a short time, as it should rise first and then brown.

General proportions for pastry: Use one-third as much shortening as flour in making pastry.

PLAIN PASTE

1½ c. flour or substitute.
½ tsp. salt.
½ c. lard.
ice water.

Mix flour and salt. Cut in the lard with a knife. Add water gradually, using only enough to moisten. Turn on a floured board and roll one-half of it for the lowest crust, about ⅛ inch thick. Fit loosely on a pan, cutting around the edges with a knife. Brush the edge lightly with cold water to make the two crusts stick together. The pie is then ready to fill. After filling, roll out the rest of the dough, making incision in the center to allow the steam to escape. Fit the upper crust to the lower crust, cut the edges to fit the pan and press them together to prevent the juices from escaping.

APPLE PIE

Pare, core and slice apples or cut in dice. Fill the lower crust, heaping slightly in the center. Sprinkle with sugar and nutmeg or cinnamon. Add a little water. Put on the upper crust and bake 35 to 40 minutes.

CUSTARD PIE

2 eggs.
3 tbsp. sugar.
⅛ tsp. salt.
1½ c. milk.
Few gratings of nutmeg.

Beat eggs slightly, add sugar, salt and milk. Line a deep pie tin with paste and build up a fluted or high rim. Strain the mixture and sprinkle with the nut meg. Bake in a quick oven to set the rim, decrease the heat afterwards, as egg and milk in combination need to cook at a low temperature.

PUMPKIN OR SQUASH PIE

1¼ c. steamed and strained squash or pumpkin.
¼ c. sugar.
½ tsp. salt.
⅞ c. milk.
¼ tsp. cinnamon, ginger, nutmeg or ½ tsp. lemon extract.
1 egg.

Mix sugar, salt and spices or extract. Add squash, egg, slightly beaten and milk gradually. Bake in one crust, following directions for custard pie. For richer pie, use an additional egg or egg yolk.

QUESTIONS ON LESSON 31

1. What kind of flour should be used for making pastry?
2. What is shortening?
3. What shortening may be used in making pastry?
4. How should pastry be handled?
5. What makes pastry tough?
6. What kind of an oven should be used for pastry?
7. How can you tell when there is enough water in the pastry?

Problem: *How can I learn to make good conservation cakes?*

LESSON 32

CAKES

There are two classes of cakes:

1. *Butter cakes.*
2. *Sponge cakes* (those without butter).

Cakes are baked in shallow pans as *layers* or in deep pans as *loaves*. Both mixtures are *batters*. The batter for a layer cake should drop from the spoon *in ribbons*. The batter for a loaf cake should drop *in lumps*.

Layer cakes are baked about 20 minutes in a hot oven.

Loaf cakes are baked ½ hour to 1 hour in a moderate or slow oven.

Good materials, careful measurements and a good oven well under control are necessary to make good cakes.

HINTS ON MAKING CAKE

1. The more you cream the butter and sugar together, the finer will be the grain of the cake.
2. Beat a cake well before adding baking powder or egg whites.
3. Stir cake as little as possible after adding the above named materials.
4. Stir a cake in the same direction. It makes the grain finer and smoother.
5. Test your oven a few minutes before you are ready to put in the cake, so it will have time to cool or heat more before it is needed.
6. Avoid jarring the oven in the first stages of baking. Do not open the oven door until half the time allowed for baking has passed.

TO FILL CAKE PANS

Be sure pans are well greased. Let the batter run from the bowl into the pans, being careful not to get it on the sides of the pans. Let the batter run well into the corners. Smooth the top with the back of a spoon, making a small depression in the center. Never fill a cake pan more than two-thirds full.

TO TELL WHEN CAKE IS BAKED

1. Insert a broom straw or tooth pick. If it comes out clean, the cake is done.

2. Touch the cake lightly. If it springs back into place, it is done.

3. Cake shrinks from the sides of the pan when it is done.

75 PER CENT CORN FLOUR
25 PER CENT. GROUND ROLLED OATS

½ c. flour.
⅔ c. sugar (4¾ ounces).
1 c. syrup (11½ ounces).
3 eggs.
¾ c. milk.
1 tsp. salt.
6 tsp. baking powder.
1 tsp. cinnamon.
2 squares chocolate.
1 tsp. vanilla.
2 c. corn flour (8 ounces).
½ c. ground rolled oats, (2 ounces).

METHOD

Cream the fat, sugar and egg yolk. Add the syrup and mix well. Add alternately the liquid and the dry ingredients sifted together. Add flavoring and melted chocolate. Fold in well beaten egg whites. Bake as a loaf about one hour, starting in a moderate oven 350 degrees F. (177 degrees C.). After 20 minutes raise to 400 degrees F. (205 degrees C.).

RICE SPONGE CAKE

¾ c. rice flour (3½ oz.).
1 c. sugar (7 ounces).
4 eggs (7 ounces).
2 tbsp. lemon juice.
⅛ tsp. salt.

METHOD OF MIXING SPONGE CAKES

Separate white and yolks. Beat the yolks until thick and light lemon color. Beat sugar into the stiffened yolks and add the lemon juice. Fold in alternately the stiffly beaten whites and flour. Bake in an ungreased pan for 35 to 40 minutes. Start in a moderate oven (365 degrees F. or 185 degrees C.) and when about half done raise the temperature to that of a hot oven (400 degrees F. or 205 degrees C.).

RESULTS OF SPONGE CAKES

These cakes are all very nice and light, texture and color good. Barley has characteristic flavor. Corn cake is especially tender and all are good textured. The extra lemon juice used with rice and corn seems necessary to improve the flavor.

ONE EGG CAKE

½ c. butter.
1 c. sugar.
1 egg.
1 tsp. vanilla.
1 c. milk.
2 c. flour or substitute.
4 tsp. baking powder.

Cream butter, add sugar gradually, yolk of egg and flavoring; then milk and flour mixed with baking powder, alternately. Beat well, fold in beaten white and bake in a greased pan 30 to 40 minutes.

BERWICK SPONGE CAKE

3 eggs.
1¼ c. sugar.
1 c. water.
1 tsp. flavoring.
4 tsp. baking powder.
2 c. flour or substitute.

Beat yolks 5 minutes, add sugar, slowly, and beat 2 minutes. Add water and flavoring. Slip the beaten whites into the bowl, and sift the flour, mixed with the baking powder, slowly over them. Fold all together. Bake in greased shallow tins or loaf. Split and fill with cream. Sprinkle the top with powdered sugar.

CREAM

1 pt. milk.
2 eggs.
½ c. sugar.
½ tsp. salt.
2 tbsp. butter.
4 tbsp. flour.

Scald milk and thicken it with butter and flour as for white sauce. Add eggs mixed with sugar and salt. Cook 2 minutes. Cool and flavor.

QUESTIONS ON LESSON 32

1. Name the two classes of cakes.
2. What is the difference between the classes of cakes?
3. How can you tell when the batter is stiff enough for a layer cake?
4. How can you tell when the batter is stiff enough for a loaf cake?
5. How can you tell when a cake is baked?
6. How full should the cake pans be?
7. How should cake batter be put in a pan?

LESSON 33

REVIEW QUESTIONS

LESSON 34

FINAL COOKING EXAMINATIONS

LESSON 35

CLEANING

LESSON 36

ACADEMIC TESTS

NOTES

1. Cook ½ macarone in boiling salted water

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